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## **The contemporary memorial landscape:**

How to convey meaning through design. A study based on cases  
from London and Palestine



**Omar Mohammad**

Doctor of Philosophy

Edinburgh School of Architecture and Landscape Architecture  
University of Edinburgh

2016



## **Declaration**

*This is to certify that the work contained within has been composed by me and is entirely my own work, and I have made a substantial contribution to the work. No part of this thesis has been submitted for any other degree or professional qualification.*

Omar Mohammad





## Abstract

Minimalism in contemporary memorial design has been criticised for being meaningless and inappropriate in creating powerful monuments (Long, 2007). However, abstraction in modern art and landscape design can appeal to the human '*subconscious*', which inspires design and enriches the experience of viewers and visitors (Jellicoe, 1966, 1970, 1993). This study investigated the meanings and the values that contemporary memorials hold through theoretical and empirical study, by which means of '*collective identity*', individual and community engagement are enriched. This notion of engagement in contemporary memorial was examined based on the psychological theories of '*transaction*' (Altman and Rogoff, 1987; Dewey and Bentley, 1949; Pepper, 1942, 1967) and '*personal projects*' (Little, 1983). Some other notions, such as '*anti-memorial*', '*personalisation*' and '*mirroring*', drawn from memorial design, environmental psychology and philosophy of art, were discussed in relation to the main theoretical background. Accordingly, this research drew a distinction between the classical memorial, where symbolic representation is viewed in isolation from the viewers and their internal cognition, and the contemporary memorial landscape with its potential for transaction and shared memory, in which a spectator becomes a participant. As memorial design is a complex and multi-layered process, a memorial project for Palestinian displacement was conducted as a complementary part to the main scientific research. It offered a complementary approach to the conventional scientific inquiry, where the research situation is not a problem to be solved, but an enquiry whose problematic situations are characterised by 'uncertainty', 'disorder' and 'indeterminacy' (Schon, 1983). The collection methods for qualitative and quantitative data were observation and behavioural mapping in conjunction with theory of '*affordances*' and the '*personal projects*' questionnaire of memorial users. Data was collected from three memorial landscapes in London: the Princess Diana Memorial Fountain (PDMF), the 7 July Memorial (7JM) and the John F. Kennedy Memorial (JFKM). They vary in scale, design approach and process. Applying these methods enabled the researcher to attain more insights into memorial behavioural settings and their possible affordances and transactional properties. Key results of the data analysis showed that PDMF had high levels of transaction and a cathartic nature through qualities of playfulness, bodily involvement and social value. While the success of this memorial mainly lay in its cathartic and grieving quality, the ceremonial phallic design of 7JM and the allegorical landscape of JFKM did prove to create successful and powerful memorials through both their didactic and cathartic dimensions. The text and lettering embossed on the design elements helped these to occur simultaneously. The intended outcome of this research was to contribute to the recent development of the way contemporary designers and artists should approach memorial design. This was in the form of design guidelines and statements, which allowed individuals and communities to gain access to what a memorial could symbolise. This could be achieved through memorial physical forms representing different meanings associated with the commemorated subject, and by addressing the memorial design process in relation to both users' perception and designer's intention.

**Key words:** Commemoration. Landscape. Contemporary Memorial. Transactionalism. Personal projects. Affordances



## Acknowledgement

First and foremost, I would like to express my gratitude to my first supervisor, Dr Simon Bell, for his critical feedback, guidance and shared experience with me.

Thank you also to Professor Peter Aspinall, my second supervisor, for his warmhearted support and assistance in theory of affordances and statistics.

I am also very grateful to Professor Catharine Ward Thomson, the director of the Landscape Architecture Ph.D programme, for her support and input throughout the course of the research. Her and my supervisors' psychological support and understanding during my difficult time due to personal and family circumstances are highly appreciated.

Thanks to other members of OPENspace, Dr Jenny Roe and Dr Eva Silveirinha, for their advice and psychological support. A special thank you to my previous supervisors, Eelco Hooftman, Dr Martin Parker and Faozi Ujam for their guidance at the beginning of my Ph.D. I would like to thank Dr Per Hedfor (Sweden) for the generous support and knowledge around my first PhD soundscape subject. Thanks too to Dee Rees for her English language and editing support, and to Elaine Dickson, Fiona Hunter and Anna Guy for their administrative assistance.

Many thanks are due to Greg McLean, Edward Strickland and Annie Thomas, the managers of the research case study sites, for helping me to conduct the interviews and for the site information they provided.

I give heartfelt thanks to my friends Montasir, Suzanne and Bahareh for their support and help with the design exhibition, and to Salma J and Ola H for their assistance with entering the site observation data and behavioural mapping. Also, a thank you to all friends for their continuous support throughout my work, in particular Ahmad S, Lindsey K, Kaori, Omid, Elizabeth P, Reena, Lucy G, Cicely, Faysal, and Chahem. A special thank you to my friend Amer for keeping up my spirits up during my difficult time. I would like to express my great gratitude to my teacher and friend Wael Samhoury for his support and mentorship.

My warmest thanks go to my parents and family in Syria, who have always supported me in accomplishing my own goals and dreams. Finally, I wish to dedicate my thesis to my daughter Jana, who was the source of my happiness, inspiration and determination.



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## PREFACE

Once, my grandfather told me: “Omar, be whoever you want to be regardless of your family background and experience and what they try to teach you”. He said that after telling me lots of stories about their life in their village, Jahula in north Palestine, before fleeing the country in 1948 to avoid being caught in the crossfire of a war battle. They moved away from home with nothing except the heavy weight of memories about loss, suffering, forced expulsion and killing. That displacement was known as “Nakba”, where hundreds of thousands of Palestinians were displaced from their cities and villages and lost their livelihoods. Then my family crossed the closest border, with Syria, and moved to a refugee camp near Damascus where they stayed for two years before moving to a village south of the capital.

At that time, I was not aware of the reason that he told me this. In fact, he just did not want me to inherit the trauma of displacement and be haunted by the memories of suffering they had experienced for the rest of my life. He wanted me to be a free spirit and live my own experience apart from my family history and memories. For me, now and after living in the UK for 11 years, this has always raised many questions about my cultural identity, belonging, attachment and the changing perception of the “ideal home”.

63 years after the Palestinian Nakba, in spring 2011, a crisis exploded in Syria, leaving more than 400,000 dead and 4.7 million refugees all around the world. My family home, a town called Sbeineh in the south of Damascus, was bombed, and my parents were forced to leave home again, fleeing to a neighbouring village. Since then I have asked my parents to leave Syria many times, but they always refused; they “...don’t want to live another Nakba, as nothing is worth scarifying any more”, my father once said.

That memory-saturated life has always motivated me to search for the

meaning of memories and the influence on who we are or want to be. It also made me extremely fascinated by the subject of memorial as a physical manifestation of memories, and raised many questions about how it might be possible to reserve, correct or wipe memories! One result of that was my project of memorial stones. Since 2008, I have asked friends who have visited Palestine and Syria to bring small stones from different cities for me. I kept them in jars in my room, looking and touching them every day. The project aims to record the emotional and mental responses of interacting with such displaced memorial objects. Those stones have been dispositioned from their geographical contexts, as were Palestinian refugees. Refugee-artefact transactional relationship will be the basis of the opening exhibition of the Palestinian Museum in Birzeit, north of Jerusalem, in May 2016, where notions of identity and homeland connection has been explored through interviews with Palestinian refugees talking about different types of artefacts that remind them of Palestine. I was one of those interviewees, and I talked about my ongoing memorial stones project, and my daily diary of ideas, feelings and thoughts I have been constantly recording (see figure 1.1a).



Figure 1.1a: Memorial stones

In this sense, memories, time and life narratives, which, according to Abrahao (2012), are the basic elements of autobiographical research, have seemed important to me whilst I have been conducting this research project. While those aspects were the initial driving force for this study, the design project was an attempt to establish a critical dialogue between life history and research findings from different empirical sources.

My growing interest in exploring this subject and its theoretical aspects began when I started studying architecture, and I believed that conducting PhD research was the best way to explore such a rich and complex subject and answer many questions about my self-identity. Part of this thesis has somehow turned out to be my self-reflective narratology on my own life experience in exile, particularly the design project of Palestinian Nakba and displacement on a site in Jamla village, near the Syrian-Palestinian border of occupied Golan Height. The site was deliberately chosen in a sensitive bordering area with a high level of political brawls and fighting front in Israel-Arab wars, so that new forms of visual and psychological dialogues can be established with the homeland.

The memorial design research has raised a number of preliminary questions: What is best to commemorate an event or a history? How do personal experience and background affect the way memorial elements are perceived? What are the characteristics of classical and contemporary memorials design and which one approach is more powerful for its users? During the first year of the study, I undertook an essential review of the literature to find out how best to approach the topic of memorial landscape design. This initial study was undertaken to ascertain what body of knowledge there was on the subject and to help to identify keywords for various searches. This identified three main areas of interests: Theories of Art, Social Studies and Theories of Contemporary Memorial Design. This coincided with the way Arthur Danto described memorial as fluctuating between art, aesthetic and social arenas.

This initial literature review showed that memorial's perception is based on subjective views and collective values, echoing cultural and social background and personal experience. We cannot describe memorial only in relation to its aesthetic quality, apart from the psychological status of its perceivers. Many precedent projects with high aesthetic value proved to be meaningless and considered a failure by people, while other informal memorials initiated by the public have gained communal powerfulness as part of a society's rituals, strengthening their sense of belonging. "Anti-memorial" or "counter-monument" is a design approach based on the evolution, ephemerality and reflection of the changing perception of memories in a certain society.

This overall subject review was followed by reading into personal construct theories in environmental psychology, such as affordances, personal project analysis and the views of "transaction" and its components of analysis. These theories proved to be the most suitable theoretical framework that defined the methods of site data collection for its holistic approach in research: site users' questionnaire to examine the internal representation and psychological process, and behavioural observation to map design affordances and people's responses to various memorial "behavioural settings". Research case studies were chosen based on their categorisations within contemporary memorial design theories, and their design controversy and accessibility. There was an attempt to gain a deeper understanding of all project stakeholders, including interviewing the site managers of all case studies. However, time limitation and funds did not allow me to analyse the interview data and include it in the thesis. This mixed methods research involved collecting, analysing and integrating quantitative and qualitative data to provide a better understanding of research problem.

As an additional part to this scientific enquiry, a design project was conducted as an implication of the different design ideas, represented in contemporary memorial design field, rather than a standalone research by design per se. In

the literature, these have fallen under a long debate that is an indication of a problematic creative and critical consensus forming around contemporary memorial aesthetics. It acted as an investigation into their aesthetic and social values, and public opinion and reaction to the project representation through the exhibition visitors' questionnaire. It was followed by a reflective re-evaluation of design process and outcome based on the results and recommendation of the first part (see research map figure 1.3b).



## **PART ONE: SCIENTIFIC INQUIRY**

# **CHAPTER ONE:**

## **Introduction**

### **1.1. Introduction**

In this chapter, monument and memorial landscape will be defined, and many aspects surrounding their emergence will be discussed. Modernism implies various challenges to traditional literature, poetry and science and to their seminal word descriptions. The same may be said about modernism's effects on 'memory' and its physical manifestation, 'memorial'. This chapter will also present a brief historical background, research process and thesis structure.

### **1.2. What are monument and memorial?**

Memorial was defined by Harris Dimitropoulos as 'a representation work that stands as a testimony to the collective importance of an event, person, or circumstance, in its most successful form it has continuing value, linking the past to the present and future' (2009). Alois Riegl stated that 'a monument in its oldest and most original sense is a human creation, erected for the specific purpose of keeping single human deeds or events (or a combination thereof) alive in the minds of future generations' (1982). Throughout life and after death, humans always tend to build, leave inheritance, have children and write wills in order to leave traces behind them; they want to be remembered, and so keep their lives important even after the last breath has been drawn. According to Charles Griswold (1986), a memorial is 'a species of pedagogy' that 'seeks to instruct posterity about the past, in so doing, necessarily reaches a decision about what is worth recovering'.

However, memorial has been defined in the Longman, Oxford and Cambridge dictionaries as following:



*'Something, especially a stone with writing on it, to remind people of someone who has died'* (Longman Dictionary).<sup>1</sup>

*'A statue, stone, etc. that is built in order to remind people of an important past event or of a famous person who has died'* (Oxford Dictionary).<sup>2</sup>

*'An object, often large and made of stone, which has been built to honour a famous person or event'* (Cambridge Dictionary).<sup>3</sup>

These dictionaries' definitions have limitations, as they identify memorial only as an object and do not recognise its landscape contextual aspects. In its wide conceptual sense, memorial is a place where the social or collective interpretation of the past is constituted through the construction of material sites of memory (Dwyer and Alderman, 2008).

#### *Difference between monument and memorial*

Arthur Danto writes: 'We erect monuments so that we shall always remember, and build memorials so that we shall never forget' (Danto, 1985, quoted in Starken, 1998). Starken comments that monuments are not meant to be for 'defeats', as the defeated dead are commemorated by memorial. Where the main aim of monuments is celebrating victory, memorials refer to lives scarified for a particular set of values (1998). According to Charles Gresworld (quoted in Starken, 1998), memorials are 'a species of pedagogy' that 'seeks to instruct posterity about the past and, in so doing, necessarily reaches a decision about what is worth recovering' (1986). This definition can be strengthened by a comparison between the Lincoln Memorial and Washington Monument. Where the latter acts as a pure symbol with no reference to any heroic figure/s, the former, with its 'funereal structure', gains its value from implicit reference to Lincoln and his philosophy and legacy.

The conventional distinction between monuments and memorials - the former supposedly characterised by triumph and the latter embodying loss - is somewhat unhelpful (Young, 1993). Monuments are a kind of memorial text, taking their place alongside a wide range of media designed to facilitate remembering and forgetting of the past. Typically situated in public spaces, memorials include a host of material

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<sup>1</sup> <http://www.longmandictionariesonline.com/>.

<sup>2</sup> <http://www.oxforddictionaries.com/>.

<sup>3</sup> <http://dictionary.cambridge.org/dictionary/english/>.

culture elements associated with collective memory, e.g. street signs, historical markers, landmarks, statuary, preserved sites and parks. Together, they constitute what may be termed the memorial or heritage landscape.

Judging by the American Landscape Architects' policies and guidelines for memorials, there is an unfortunate ignorance of the term 'memorial landscape'. Instead, memorials are classified as 'monumental objects' (ASALA, 1995). These guidelines assume that memorials, like buildings, can destroy public open spaces and green spaces in the city. They also state that memorials should only be dedicated to those who have 'rendered distinguished public service'. These policies make no allowance for memorial design work that reveals community history or celebrates people from normal everyday life; instead, they only allow for hero celebration.

Starken (1998) identified a different way of distinguishing monument from memorial. He stated that 'memorials tend to emphasize specific texts or lists of the dead, whereas monuments are usually anonymous'. This is very clear when looking at the Lincoln Memorial and its implicit reference to Lincoln's death, legacy and philosophy, and the Washington Monument, which acts as a symbol with no list of names or words or reference to any heroic figures.

### 1.3. Memorials and public realm

*'The historical past, a terrain mapped along a grid of causally linked events, across a linear, homogenous time, does individuate us, as persons and communities, but it is memory,*

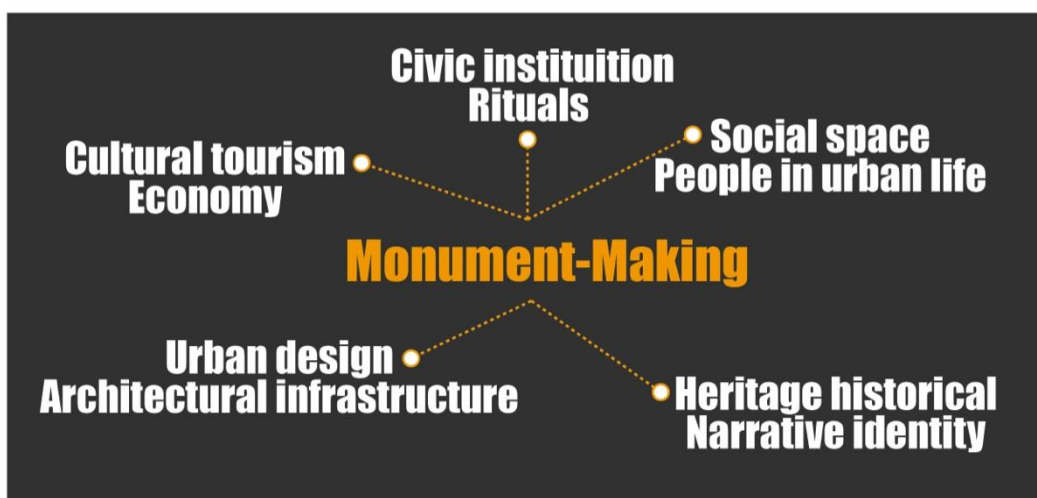


Figure 1.1b: Monument-making and spheres of public policy making

*individual or collective, whose landscape is uneven, marked by trauma, conflict, and guilt, and always eliding the past and present...gives us identity and a moral narrative of pride, shame and indebtedness, that ties us across time to our past and the burdens this past imposes simply by virtues of being ours' (Booth, 1999).*

Memorial, with its meaning of 'memory', holds traces of places and landscapes, through which many stories can be read. These places have memory traces embedded in their surfaces, expressed in 'mute profusion' (Casey, 1987). 'Some are lovingly preserved and restored, becoming part of the collective or social record of a community' (Wasserman, 1998: 43). Judith R. Wasserman stresses the importance of connecting memorials to place and landscape, and points out that denying this results in disorientation or the limitation of memorial impact. In relation to the ability of the place to host memory and meanings, phenomenologist Edward S. Casey says: 'Requisite to any full understanding of memory of place is thus a recognition of the way in which place itself aids remembering. It does so precisely as being well suited to contain memories - to hold and reserve them' (1987).

Memorial is a landscape with a great cultural identity, rich with metaphorical symbolism. It enriches public spaces with sacred stories that reveal and heal, which can have positive impacts on a community or small specific group of people. Moreover, its didactic role cannot be ignored: it can teach about history, culture and religion. Due to the high human demand for places of memory and memorials, a new age of contemporary memorial landscape and design vocabulary emerged in the last two decades of the twentieth century.

Monument-making in general has emerged from the confluence of various overlapping 'spheres of public policy making':

- 1- Civic institution and rituals;
- 2- Social space and people in urban life;
- 3- Urban design and architectural infrastructure;
- 4- Cultural tourism and economy;
- 5- Heritage, historical and narrative identity (Vickery, 2012) (Figure 1.4).

These five spheres cover the main areas of civic life. They are clustered as representative of 'the people' in most political and social systems. Today, as noted by

Vickery, this might take the form of 'national policy discourse/public management/cultural consultancy'. Thus, monument-making, whatever design approach it embraces, is unfortunately still controlled by policy making and regulations (Figure 1.1).

#### 1.4. Brief history of memorials

Monuments have been built for thousands of years, and they are often the most long-lasting symbols of nations and civilisations. Prehistoric monumental structures were created by a large number of prehistoric cultures across the world, and the many forms of monumental tombs of the more wealthy and powerful members of a society are likely to be a source of rich information and art from those cultures. Monuments have also been designed to convey social, historical or political agendas. They can reinforce the superiority of contemporary political power, or educate the public about important events or figures from the past. The social meanings of monuments are more likely to be uncertain and are repeatedly questioned by different social groups.

As described by Allen, commemorative sculpture in public space is at least five thousand years old, and for around half of this period, its vocabularies are derived from the Mediterranean tradition (2009). These vocabularies contribute to the design language of almost all memorials and monuments throughout history.

In the UK, the First World War signalled an important shift in the way society commemorated its dead, and memorials for victims and ordinary people started to emerge (see Chapter Two). Dan Todman wrote about the way the nature, complexity and scale of the First World War 'required and



Figure 1.2: Sir Edwin Lutyens and the opening of the Cenotaph in Whitehall in 1919

complicated its remembrance'. Many who died in the war had no known grave, and societies suffered enormous pressure. However, there was a sense of living through a historical moment that needed to be recorded, and the meanings and remembrance of war events were matters of concern.

In 1920, a wave of commemoration took place that included the opening of the permanent Cenotaph in Whitehall. It was originally a wood and plaster structure designed by Edwin Lutyens in 1919 (see Figure 1.2).<sup>4</sup> It was one of many temporary structures erected for the London Victory Parade (Gliddon and Skelton, 2008). The term Cenotaph was first used by Lutyens in connection with Munstead Wood, a house he designed for Gertrude Jekyll in the 1890s. Lutyens' Whitehall Cenotaph design was used in the erection of other war memorials in the UK and the British Empire (ibid). According to Ian Jack, a columnist for the Guardian, no other modern memorial in London can match it in its powerfulness and meaningfulness. He was shocked that modern memorials were divided between 'banal literalism and meaningless abstraction' and do not serve their purpose (2012).<sup>5</sup>

The social, cultural and geo-political changes of the second half of the twentieth century introduced new approaches to designing memorials, and to the choice of for whom they should be dedicated. Contemporary movements in art, architecture and landscape architecture at the end of the century questioned the permanence of memorial that opposes the flux of memory and the unceasing process of forgetting.

Following on from this paradigm shift in thinking and designing memorial landscapes, the research aim was to identify the common modes of perception and the individual behaviour settings and issues which are common to all contemporary memorials, based on findings from the research methods of site data collection and case-study visits. The research methods included behavioural observation, users' questionnaires and a research by design project. The research aims are presented in Chapter Three.

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<sup>4</sup> AA Files 34, retrieved on 20<sup>th</sup> August 2015 from:  
[www.cromp.com/download/pdfdocs/Secret%20of%20the%20cenotaph.pdf](http://www.cromp.com/download/pdfdocs/Secret%20of%20the%20cenotaph.pdf).

<sup>5</sup> Retrieved on 20<sup>th</sup> August 2015 from:  
[www.theguardian.com/commentisfree/2012/nov/09/remembrance-day-time-honour-memorials](http://www.theguardian.com/commentisfree/2012/nov/09/remembrance-day-time-honour-memorials).

### 1.5. Research process

The main research strategy was based on a series of case studies, from which a set of data collection and analysis methods were applied. The data collection methods included carrying out a personal projects user questionnaires, observation, and behaviour mapping. The findings from these methods were analysed and supplemented by the theory of reflective practice and the results of research by design.

The theories studied in conjunction with these methods were personal projects analysis and affordance (see Chapter Three). The three case studies are the Princess Diana Memorial Fountain (PDMF), the 7 July Memorial (7JM) and the John F. Kennedy Memorial (JFKM) (see Chapter Four).

The users' questionnaire was conducted on-site first, based on theories of personal projects analysis (**personal projects analysis dimensions**) and affordances (the **site actualised affordances** and design preferences in order to explore the internal and external representations of the user-environment relationship. This allowed the researcher to examine the transactional nature of contemporary memorial landscapes (see Chapter Four and Appendix C for the questionnaire design). The data was analysed and the findings are presented in Chapter Five.

After conducting the users' questionnaire, the researcher carried out behavioural observation of the case studies. Affordance frequencies in relation to behavioural settings and gender and users' group variation are analysed in Chapter Five. This includes three units of analysis: **behavioural settings** (memorial elements), **affordances** (activities carried out by users) and **users' gender and age groups**. Moreover, maps of affordances and users' motion have been produced.

This scientific approach was complemented by research by design, using archival research into the historical background and oral history project and the theory of reflective practice. The project was a commemoration of Palestinian displacement through the design of a memorial park and museum for Palestinians expelled in the 1948 war. The design outcome, which was exhibited in Tent Gallery at the Edinburgh College of Art, and a visitors' questionnaire distributed during the exhibition, are Z

Chapter Eight discusses the research findings from all methods, based on the three research questions. It also includes a conclusion, design recommendation, research limitation and potential for future research.

A triangulation of these three methods (users' questionnaire, behavioural observation and research by design) is presented in Figure 1.3a and 1.3b. Figure 1.4 shows how this research embraced both scientific and design inquiries. The Scientific inquiry was introduced in memorial literature review presented in Chapter Two, which will include conceptual and historical background, in addition to the notions of “invisibility” and “ephemerality” in contemporary memorial landscape design practices.

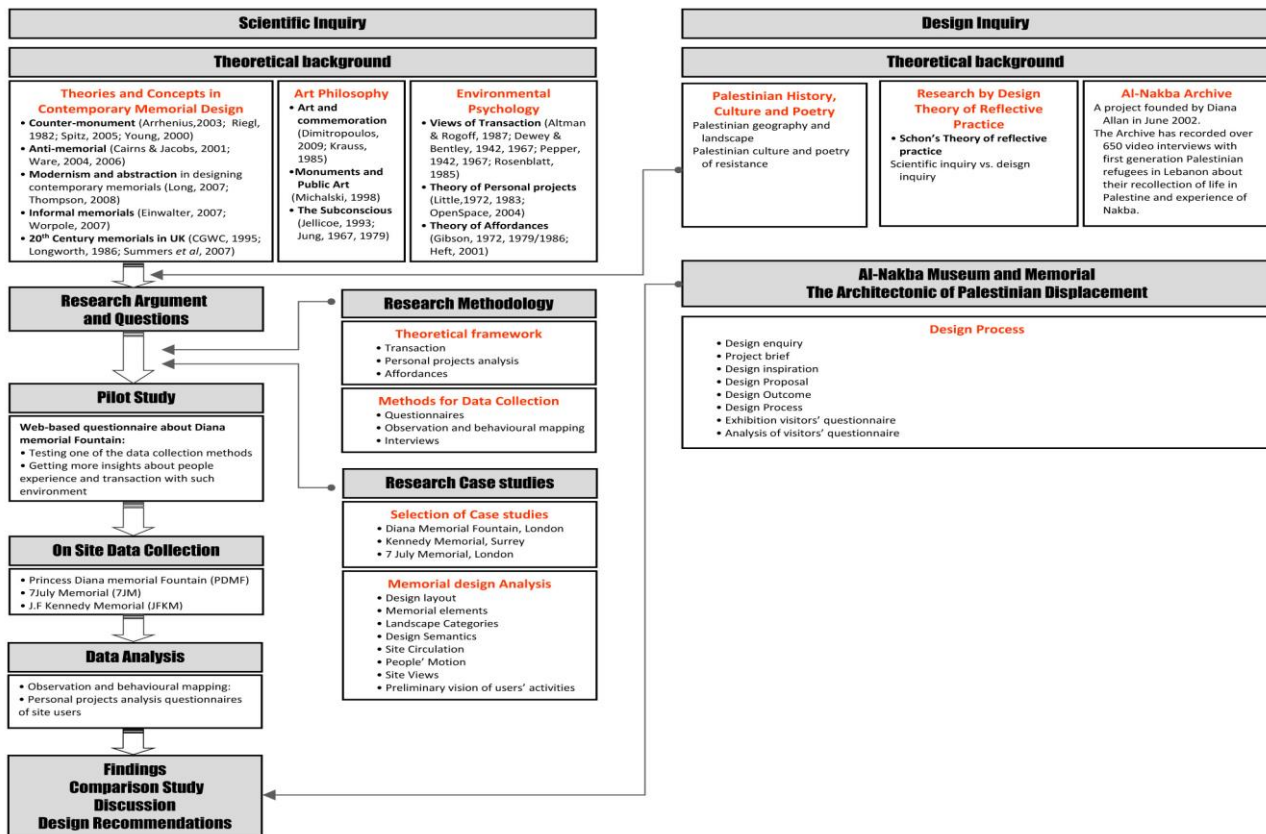


Figure 1.3a: Research structure

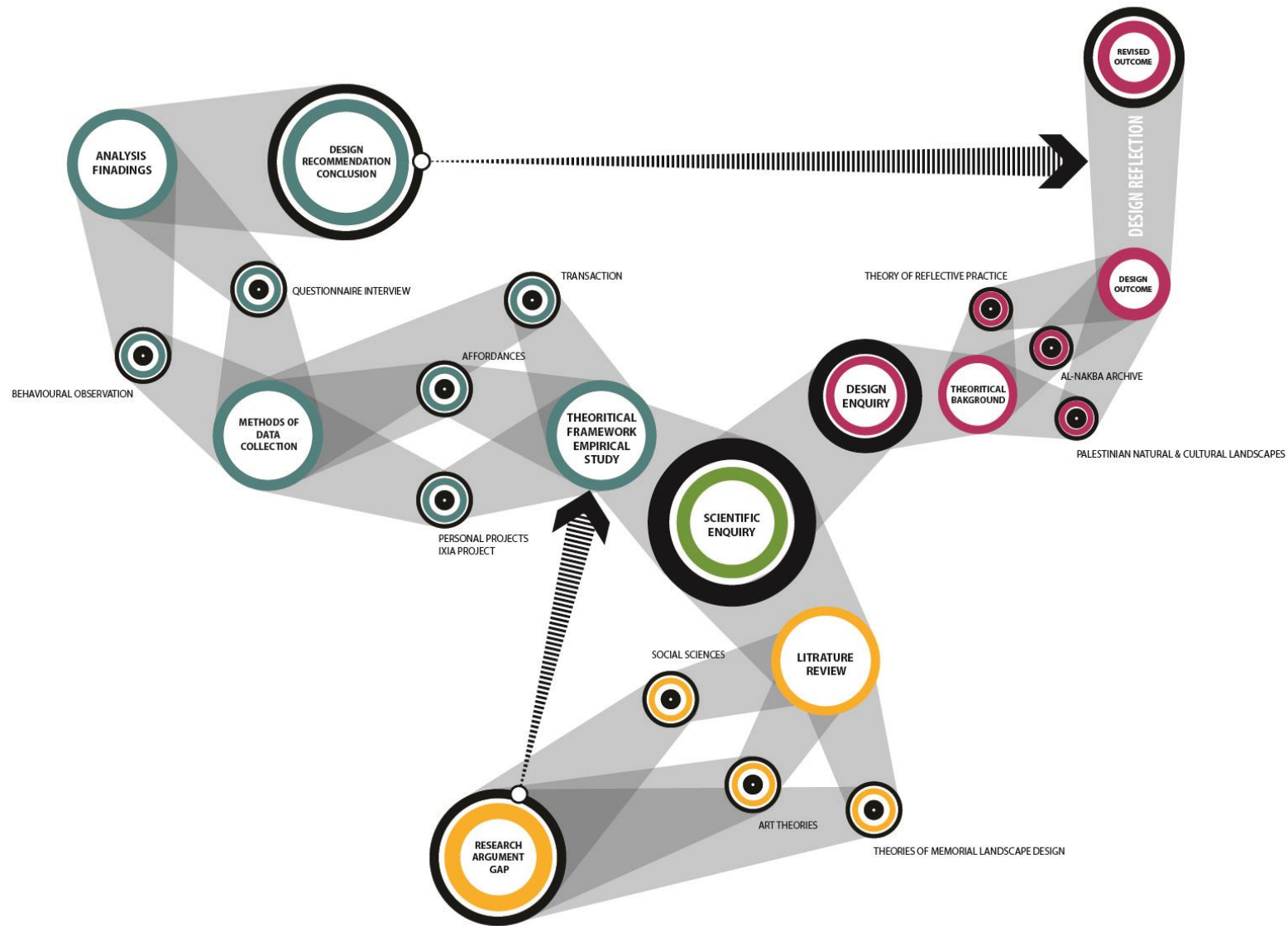


Figure 1.3b: Research design map



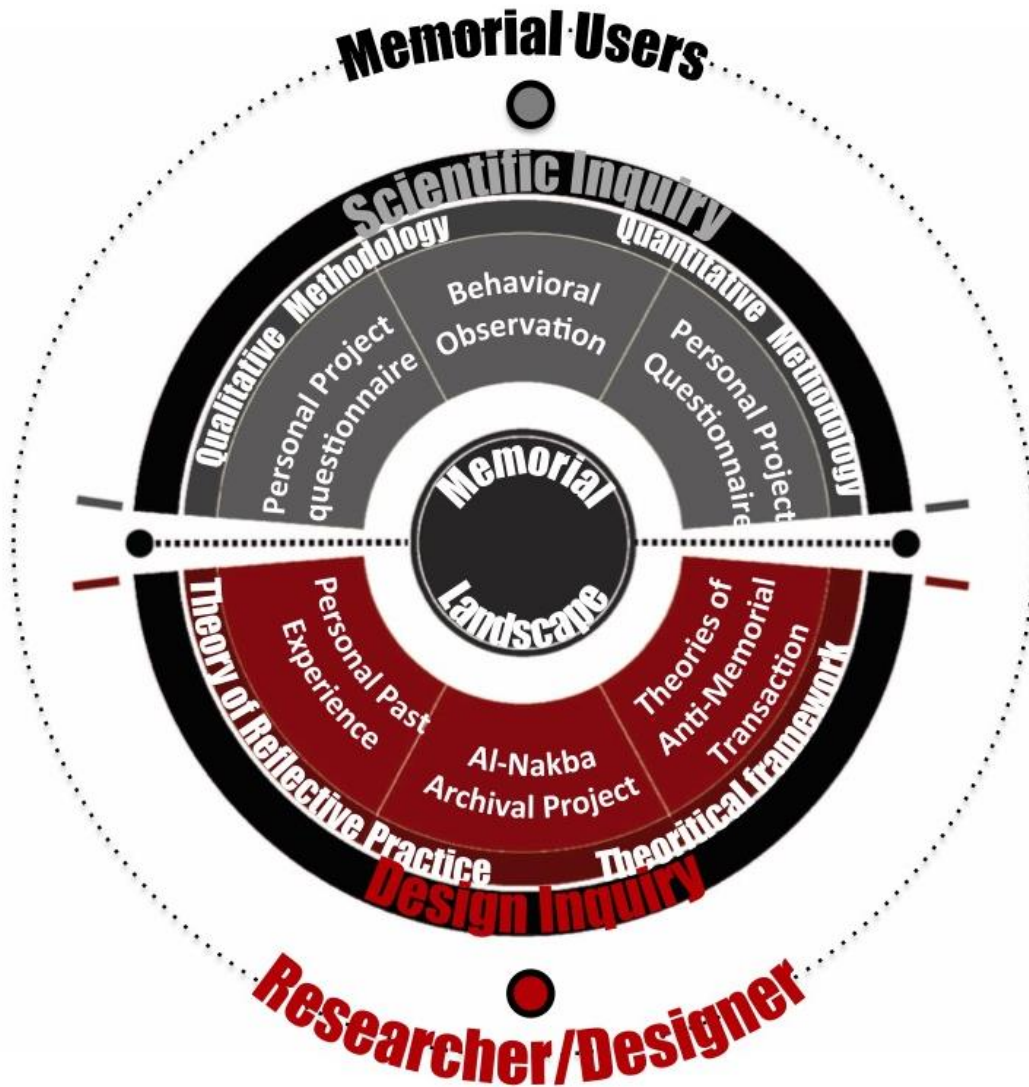


Figure 1.4: Research *scientific* and *design* inquiries

## 1.6. Thesis structure

<p style="text-align: center;"><b>DEFINITIONS AND BACKGROUND</b></p> <p>CHAPTER ONE: INTRODUCTION</p> <ul style="list-style-type: none"> <li>- Memorial and monument definitions</li> <li>- Brief historical background</li> <li>- Memorial and place-making</li> <li>- Research process</li> <li>- Research structure</li> </ul>
<p style="text-align: center;"><b>THEORITICAL CONTEXT</b></p> <p>CHAPTER TWO: LITRATURE REVIEW</p> <ul style="list-style-type: none"> <li>- Evolving memorial from classicism to modernism</li> <li>- Study of memory</li> <li>- Concepts of anti-memorial and counter-monument</li> <li>- Taxonomy of contemporary memorial landscapes</li> </ul> <p>CHAPTER THREE: RESEARCH GAP, ARGUMENT AND METHODOLOGICAL FRAMEWORK</p> <ul style="list-style-type: none"> <li>- Research argument and lack of empirical evidence.</li> <li>- Methodological framework</li> <li>- Research aims and questions</li> </ul>
<p style="text-align: center;"><b>EMPIRICAL STUDY &amp; CONTRIBUTION TO KNOWLEDGE</b></p> <p>CHAPTER FOUR: METHODS FOR DATA COLLECTION</p> <ul style="list-style-type: none"> <li>- Mixed method research</li> <li>- Methods for data collection: Users' questionnaire and behavioural observation</li> <li>- Pilot study: On-line users' questionnaire of Princess Diana Memorial Fountain (PDMF)</li> <li>- Data collection</li> <li>- Descriptive summaries of research case studies</li> <li>- Research by design</li> </ul> <p>CHAPTER FIVE: DATA ANALYSIS</p> <ul style="list-style-type: none"> <li>- Analysis and results of users' questionnaire</li> <li>- Analysis and results of behavioural observation</li> </ul>
<p style="text-align: center;"><b>RESEARCH BY DESIGN</b></p> <p>CHAPTER SIX: AL-NAKBA MEMORIAL</p> <ul style="list-style-type: none"> <li>- Research by reflective practice</li> <li>- Design brief and questions</li> <li>- Historical background of Palestinian displacement</li> <li>- Design process and outcome</li> <li>- Exhibition visitors' questionnaire and analysis</li> </ul>
<p style="text-align: center;"><b>DISCUSSION, CONCLUSION</b></p> <p>CHAPTER SEVEN: DISCUSSION AND DESIGN RECOMMENDATION</p> <ul style="list-style-type: none"> <li>- Discussion of three research questions</li> <li>- Comparison study</li> <li>- Conclusion and design recommendation</li> <li>- Research limitation and potential future research</li> </ul>

Figure 1.5: Thesis chapters



# CHAPTER TWO:

## Literature Review

### 2.1 Introduction

This chapter explores the conceptual and historical background of contemporary memorial landscape design practices, and the emergence of the concept of 'Anti-Memorial' and 'Counter-Monument' in the second half of the twentieth century, after the Second World War. These notions of memorial 'invisibility' and its perception as an 'interior space' rather than a physical formulation were linked with ideas argued by art critics and philosophers. Based on the physical expressions of meanings and symbolism of contemporary memorial landscapes and their narrative approaches, the researcher has developed a classification or taxonomy of proposed and built examples of contemporary memorial landscapes.

### 2.2 Evolving memorials: From classicism to modernism and beyond

#### 2.2.1 *Shift of discourse in memorial design*

While monumental motives were predominant design elements in memorials in the classical era, new forms and typology have evolved, implying a paradigm shift in the ways of transmitting meaning and an introduction of modernism to memorial design. As John Lobel explains, modernism is 'inherently anti-monumental'. New vocabulary emerged in memorial design in the mid-twentieth century, following the introduction of modernism in architecture around 1900. 'The model of what was an acceptable memorial changed because of a new cultural consciousness,' Evan Douglass says (LMCCC, 2003).



Figure 2.1: Arc de Triomphe, Paris, France, designed by Jean Chalgrin in 1806

Traditionally, monuments are meant to be figurative, triumphal and celebratory, combining both architectural and sculptural objects. This type of classical commemorative public art, with which we are familiar today, evolved as part of the process of 'nation-building' of eighteenth and nineteenth century Europe (Moran, 2007). It helps to mark geographic or conceptual territories, or celebrates the triumph or victory of a dominant political regime. As an example, the Arc de Triomphe in Paris constitutes a memorial and triumphalist gesture for the Frenchmen who died at the battle of Austerlitz (Figure 2.1). It is an enormous arch positioned in a central location, and celebratory in style, praising the French victory over the Third Coalition. Michelle Leung noted that there is no clear definition of what makes a monument traditional or conventional. Its design is usually based on a theme, for instance 'reconciliation, endurance, tragedy, or culpability.' Conventional monuments tend to represent figurative realism rather than pure abstractness in an attempt to portray a specific image of the past to their viewers; generally, this is achieved through statues or memorials resembling gravestones with the innumerable names of victims engraved upon them. Generally, conventional monuments tend to symbolise something about the past.

As such, traditional monuments were made with long-lasting materials, such as metal or stone, and were built to remain for a long time as national celebratory landmarks. However, at the turn of the twentieth century, monumental public artworks became very complex and controversial, particularly after the two World Wars. These two events raised questions about the relevance of traditional monuments and their politically-driven objectives. After the First World War, traditional practices of commemorative public art and monuments, with their emphasis on heroism and triumphalism, failed to express the sense of collective loss and futility caused by the war. Additionally, when artists and designers attempt to represent past memory or history through memorial design, it is a personal interpretation of the past that is not necessarily the same as that of the viewers. Through symbolising history in a physical, monumental structure, 'the representation is authoritatively dictated to society as a legitimated truth about the past' (Leung, 2011).

Ellen Spitz noted that these traditional passé edifices, as described by scholar James Young (2002), 'not only carry the dead weight of cultural mythology and false history

but also relieve us, in fact, of our own responsibility to remember... Once in place, such monuments stand in for our duty to study history... They even make it possible for us to feel superficially, good.' Spitz continued to explain that they award us with 'premature satisfaction' that might better stay unassuaged. As Freud mentioned in his classic 1917 paper, 'Mourning and Melancholia', they can help us to find 'manic solutions' and thus rescue us from lasting misery (Spitz, 2005: 419; Freud, 1917).

As a result, new modes of 'memorial' design emerged, such as the Tomb of the Unknown Soldier and the Cenotaph, which had a great influence on subsequent commemorative public work (Figure 2.2). These developments in art, architecture and theories of memory and memorials presented considerable challenges to traditional monumental practice, questioning its relevance. By the end of the twentieth century, new issues relating to memorial design adequacy and public satisfaction were being raised, and new models of memorial design practices evolved, such as 'Counter-Monument' and 'Anti-Memorial', which will be explained and discussed in detail later in this chapter (Moran, 2007). Examples of these include the works of Joachim and Esther Gerz, Rachel Whiteread and Sol Le Witt.



Figure 2.2: The Cenotaph in Whitehall, London, UK, designed by Sir Edwin Lutyens, 1920([www.ouldukphotos.com/london\\_whitehall.htm](http://www.ouldukphotos.com/london_whitehall.htm))

As with all public art and design work, the outcome is informed by many interests and concerns – political, social, economic and aesthetic – and memorial design presents additional challenges and concerns. When the memorial subject is a tragic event, related to death or loss, it can be difficult to reach a solution that both satisfies those who are directly affected by the event and meets the needs of the wider public

audience for a long period of time. The Vietnam Veteran Memorial by Maya Lin in Washington D.C. and the 7<sup>th</sup> July Memorial by Carmody Grooke in London are examples of memorial works that manage to achieve this balance. In these cases, memorial works provide both a place for commemoration and an attraction as a public artwork or place.

The conventional approach to traditional monument design seeks to appeal and soothe rather than challenge, yet a literal interpretation of the memorial subject can lack emotional or poetic effect. This type of traditional work can prevent more experimental and innovative, yet challenging, design from emerging. 'The need to remember and commemorate is rooted deep in the human psyche and,



Figure 2.3: John F. Kennedy Memorial, Dallas, US, designed by Philip Johnston

where memorialization seeks to go beyond the merely commemorative, mnemonical gesture and to engage in a meaningful, poetic response, rooted in contemporary experience, the potential of such practice is to be found within contemporary art practices' (Moran, 2007).

Andreas Huyssen, a German literary critic, notes that the monument, through aestheticisation and a politically-driven process, can serve the purpose of forgetting; he prefers to support works that resist 'easy consumption' and require more of the viewer's engagement than just emitting meanings through a first reading (1994). Conventional monuments with a clear and completed agenda as a reference to the past, according to Michelle Leung (2011), tend to create and perpetuate history as seen through the eyes of the presenter/ designer, as a singular representation disseminated to the viewers. 'This creates an authoritarian relationship between society and monuments whereby the monuments dictate the collective memory that society holds, as opposed to society communally formulating an interpretation of history that is reflected in their monuments' (Leung, 2011).

These acts of engagement, self-interpretation and uncertainty, which signify a new era of contemporary Anti-Memorial design, support the 'transactional' nature of such memorial perception, where the meanings are concluded through a simultaneous action and reaction between the 'reader/viewer' and the 'text/memorial meanings'. Cognitive affordances theory, one of the environmental perception theories, suggests that this same transactional process occurs through a constant two-way data exchange between the mental 'internal representation' and the outside 'external representation'. Further details about this theory and this research methodological framework are given in Chapter Three.

### *2.2.2 Evolving memorials: From didacticism to catharsis*

As memorial is identified as an embodiment of art in public space, it is worth gaining more insight into its aesthetic and social functions, and the relation between art and truth as seen by art critics and philosophers. Noel Carroll argues that it is the fact that memorials are designed to perform social functions rather than providing a purely aesthetic experience that results in a reluctance to define them as artworks (2005). Alain Badiou suggested that there are three schemata depicting the relationship between art and truth: didactic, romantic and classical or healing.

The art historian Arthur Danto claimed that classical monuments seek to present the victory of past events and historical references to the subject of commemoration; therefore, they seem to fall within Badiou's didactic schemata (McKim, 2008). Danto notes that contemporary memorials have shied away from this didactic tradition and moved towards a more subtle and ambiguous view of the events to which they refer. They embrace a cathartic mode of representation. As McKim notes, Carroll suggests that this cathartic mode has become the norm for contemporary memorials and writes that 'these sites give articulate focus to the unease the loss has caused and allow for the reassessment of the event in retrospect; this enables mourners to manage their emotions, to move from shock to healing' (2005). On the other hand, Badiou thinks that memorials must either serve a didactic or cathartic function; they must either instruct or initiate a healing process. He claims that the problem with the Ground Zero memorial proposal is that it attempts to perform both of these functions, which



indicates the problematic nature of the current discourse of memorial design (McKim, 2008).

## **2.3 Memorial and study of memory**

### *2.3.1 The role of individual and collective memory*

Memory in society, individual or collective, is considered to be a source of 'cultural good' as well as personal experiences (Levinger, 2002). One can identify memory as a 'pedagogical tool' for understanding the current identity of society and the means by which future generations will manifest their own sense of self. Traumatic history and memories of the past are always alive in society, due to their legacy. James W. Booth says that the past, the dead and those yet to be born all have their claims on the living, even if they and the historical events surrounding them are long gone (1999). In the case of historical events of great magnitude, the problem with collective memory, which can be represented as works of art, museum display, literary works, poetry and even films, is that it denies an individual's memory of the past and replaces it with the accepted collective memories of the society.

Through her studies of the politics of memory, Kathryn Mitchell asserts that memory is acquired through social interaction and is thus subject to 'social construction'. Furthermore, Mitchell highlights that there is a 'deep politics to memory', and argues that 'each age attempts to refashion and remake memory to serve its own contemporary purposes. Memory is sustained through the interplay between collective recollection and repetition' (2003). Analysing the history of memorialisation throughout history illuminates the fact that memory has been highly controlled by the assertiveness of society and constructed by the collective memory to create the state social and political identity. In a later section of this chapter, further details about the role of the 'Counter-Monument' memorial design movement in decentralising the memory-making process as a form of justice for individuals and those directly affected by events will be provided.

### 2.3.2 Memorial and memory

*'Without memory, without reading the traces of the past, there can be no recognition of difference (Adorno called it "nonidentity"), no tolerance for the rich complexities and instabilities of personal and cultural, political and national identities'* (Huyssen, 1994: 10).

*'Memory, collective or individual, is as much a resource and 'cultural good' as it is a recollection of a personal experience'* (Leung, 2011).

Heidegger wrote, 'Originally, memory means as much as devotion: a constant concentrated abiding with something - not just with something that has passed, but in the same way with what is present and with what may come' (Heidegger, 1993: 365). The etymological roots of 'memory' and 'monument' are linked: both have the same origin, meaning 'to remind' and 'to be mindful' (Ware, 2008).

Recently, references to 'memory' as a keyword have become ubiquitous in the field of humanities and social sciences. In spite of the immensity of studies of memory in academia during the last generation, its sources and its argumental journey remain under investigation (Shanken, 2009). As mentioned above, memorials are strongly linked to traces of memory of any place or community. They should not be limited to one community or social group, but instead should be accessible to all people from different cultures and religions. In the case of some current completed memorials, despite the fact that they are described or defined as 'modern' or 'contemporary', they act as a rebuttal to what modernists tend to seek, and instead come to enhance community memory and its place attachment.

In regard to the permanence of memory and events as one of the functions of memorials, Casey describes the need for a 'stabilising persistence' of memory settings in order to guarantee the repetitions of



Figure 2.4: 43 Slide Projection of former Hebrew bookstore by Shimon Attie, Berlin, 1991. (Young, 1994)

experiences. This enhances the rooting of memory and events in specific locations (Casey, 1995). Establishing a permanence of ideas can be achieved through giving memory a material structure and reforming urban spaces. As explained later in this chapter, the concept of 'Anti-Memorial' acts as a rebuttal to this idea of permanence. 'There are instances of memorials being employed to erase traces of events, thereby diminishing history's force' (Wasserman, 1998).

Memory can be manifested into typography, based on the memorial's distance from its historical event site. First, a memorial can be built on the historical site, which has special mnemonic powers for resurrecting memories of past times. Maurice Halbwach recorded the mnemonic powers of some historical sites in Palestine. He claimed that the act of memorialisation requires a 'mapped creation of unforgettable places' (Hutton, 1933: 80, as quoted by Wasserman, 1998). 'We must come to heed the proper place of the remembered - its manner not just of occupying space but of incorporating it into its own content. Situating by its very nature, place adequately heeded will help us situate memory more fully than has been possible thus far' (Casey, 1987: 184)

Projecting or recalling memories on or near transformed historical sites can motivate viewers to reflect on their change and transformation. An example of this is the work of Attie and Radermacher: slides of images of former Jewish communities in Germany projected on the facades and elements of existing buildings (Figure 2.4). Situating memorials near the actual sites, or at a place with strong associative elements, can result in a powerful design. For example, the Vietnam Veterans memorial, like many war memorials, was not built on the site of the Vietnam War, but instead on the Washington Monument Mall, a symbolic centre of the United States Government (Figure 2.5). If the community is no longer near the historical site, the memorial will be created with no relevance to the site, but instead to the people. War



Figure 2.5: Vietnam Veterans Memorial, Washington D.C., US, by Maya Lin, 1982

memorials often fall into this category. Over time, such places can lose their ritual function and power due to their distance from the historical place, and turn into a historical relic.

Memory, as a twentieth century keyword, does not belong to the compendium of keywords of the modern world described by Raymond William in 1976, partly because its origin extends further back in time. Memory sits apart from William's bundle of keywords (which shaped the changes of the industrial and political



Figure 2.6: Civil Rights Memorial, Montgomery, Alabama, US, designed by Maya Lin, 1989

revolutions that changed the world between 1776 and the early twentieth century (Shanken, 2009)). In Frances Yates's book, *The Art of Memory*, it was demonstrated that memory played a significant role in 'Roman rhetoric'; it was foundational to 'Medieval Christian' notions of 'virtue and vice'; and it was carried through by Renaissance humanists until it helped create the 'scientific method of modern society' (Yates, 1966). Furthermore, when moving from word to the physical manifestation of memory, most modern and contemporary commemorative practices, even those which appear to be great departures from the past, have ancient or medieval roots, and their designs are based on longstanding habits (Shanken, 2009). For instance, Maya Lin's Vietnam Veterans Memorial in Washington D.C. is inspired by an ancient tradition of walls engraved with names, and the use of the water fountain in the same designer's Civil Rights Memorial in Montgomery, Alabama, goes back to the ancient civilisations of Sumeria, Egypt and Assyria (Figures 2.5 and 2.6).

Memorials in the past failed to fulfil their roles for society, as they were controlled by the collective memory of the social and political discourse of a regime or state. Conventional monuments have dictated collective memory, and thus failed to play the necessary roles for physical memorialisation.

### *2.3.3 Memorial and the art of forgetting*

Australian historian Robert Musil claims that 'there is nothing in this world as invisible as a monument' (1987). Despite their commemorative rhetoric, memorials tend to have a very short lifespan, and turn into landmarks or ornamentation over time. They are designed to have a memorialisation purpose and implore viewers to remember, yet the effect they have on viewers is to be forgettable or invisible. 'There is evidence that the failure of much commemorative public art to engage the viewer over time may be the result of multiple, competing agendas, collective decision-making and compromised artistic vision, but it is also possible that forgetting is in fact part of the purpose of commemorative public art – a form of built in obsolescence' (Moran, 2007).

This notion of 'invisibility' is an idea compatible with the principles of 'Anti-Memorial' and its implications of changeability, flux and transformation that in one way or another lead to a state of adaptation. According to Freud, forgetting is an essential part of the mourning process, whereby the mourner can work through the painful stage of remembering until he reaches a point when memories can be forgotten. He said, 'Forgetting is not a malfunction or failure of memory; it is a characteristic that enables people to continue living' (as quoted in Moran, 2007). Memorial is the physical manifestation of memory; it can facilitate this process of remembering and forgetting in a manageable manner, and can serve as an accessible container for memory.

In Sue-Anne Ware's research and design practice, 'Anti-Memorial' ideas have evolved around the fact that memory and landscape have 'slippery qualities' whose driving and directing forces influence the way that memorial forms are generated (2008). In light of this, she stresses that while memory and remembering are fluid processes, and are under constant acts of reconstruction and re-evaluation, the 'arts of forgetting' are considered an essential part of these processes. In memorial design and commemoration practices, affirming memory and remembering is usually perceived as a positive act. Anti-Memorial approaches widen this vision to richer speculation and celebration of a 'subversive range of states within the diverse operations of memory' (ibid).

## 2.4 The concept of 'Anti-Memorial'

### 2.4.1 Introduction

'Anti-memorials' are described as '*working memorials*', which invite collective engagement. They are not projects for silent and symbolic sites of memory, but agents for active dialogue (Bonder, 2009). Another important aspect of this design approach is the growth of memorials based around personalised acts; therefore, the subjects



Figure 2.7: Virginia Tech 'Lie Ins' Memorial

celebrated have also shifted dramatically from heroes of war and imperialism to victims and social issues (Ware, 2004). 'As being interactive rather than dogmatic; ephemeral rather than permanent; modest rather than heroic; offering multiple interpretation rather than singular readings of history...this memorial was meant to challenge the traditional idea of the monument which...is firmly aligned with power, force, and imperial' (Cairn and Jacobs, 2001). This theme of contemporary memorial design operates at a high level of transaction, by recovering the internal representations of the viewers and by means of personalisation, self-reflection and engagement through time and space. These traces of users in the place are called 'environmental personalisation memory cues', which reinforce the sense of who we are and the sense of belonging, vis-à-vis our '*collective identity*' and '*collective memory*'. This type of commemoration process is meant to allow for more interaction, self-expression and personal forms of mourning.



Figure 2.8: The Anti-Memorial to Heroin Overdose Victims, Melbourne, Australia. Sue-Anne Ware, 2001

The concept of 'Anti-Memorial' signals a change in the discourse of public commemoration, as well as a shift from a single reading of history to multiple interpretations of its events. Sue-Anne Ware stresses the importance of Anti-Memorials in embracing impermanence, social accessibility and ephemerality.

Anti-Memorials emphasise the informal and the local as opposed to the formal (2004, 2006). Furthermore, her practice investigates how memorial design can utilise the flux and fluidity of landscape and memory in a very specific social and political context. Through a series of real projects in Australia, such as *An Anti-Memorial to Heroin Overdose Victims*, *The Road as Shrine Project*, and *The SIEVX Memorial Project*, she takes the challenge of embracing changeability against fixation, absence against presence, and scepticism against affirmation (Figure 2.8). Another significant work by Sue-Anne Ware is the organisation of the Stolen Generation Memorial Competition in 2001, which was a collaboration with Link-Up Victoria, the Melbourne Museum and the Royal Melbourne Institute of Technology, School of Architecture and Design. The outcome of this was an exhibition of competition entries and an online gallery. These built and proposed examples will be presented in detail later in this chapter.

#### 2.4.2 Characteristics of Anti-Memorial

The researcher has identified six characteristics of Anti-Memorial:

##### 1- *Self-interpretation and reflection*

The openness and abstraction of Anti-Memorial invigorate individual and collective self-expression and reflection, as its design operates as an empty canvas for the viewer's intervention. This represents a high level of 'transaction' between the users and the environment, as opposed to a separable relation between the viewer and the figurative monument. Self-reflection can be achieved through imagination and contemplation over memorial abstraction and symbolism. Irit Dekel explains how visitors to the



Figure 2.9: Touching at the Vietnam Veterans Memorial



Memorial to the Murdered Jews of Europe in Berlin are engaged with memorial design content: 'They all ask: "What does it look like?" "What is it?" "What is the meaning of the site?" They wonder whether elements in it (such as the stele numbers) convey meaning.' He also argues that the abstract quality of this type of memorial plays a role in allowing more 'encounters and simultaneity' (2009).

## 2- *Commemoration of the forgotten*

As described by Ware (2004, 2006) and Vickery (2012), Anti-Memorial design shifted from celebrating nations' victories and figures to remembering normal public individuals.

## 3- *Physical interaction*

Anti-Memorial affords physical interaction, such as touching, sitting or playing, in a very simultaneous and natural manner (Figure 2.9).

## 4- *'Theatre of memory'*

As described by Bodemann (1996), collective remembrance at memorial sites takes place in theatrical settings, where there are actors (i.e. the visitors) and audience or other spectators who are also considered actors per se (as cited by Dekel, 2009: 78). This play of simultaneous actions of commemoration and reflection between the actors and the place, and among actors themselves, is what identifies Anti-Memorial as a 'transactional' setting. This also emphasises the idea of memorial social space (or a place with meanings in memorial context) as a 'social reality' and a 'set of relations and form'. Social reality means the assembly of simultaneity, encounters and everything and everybody that is in the space.



### 5- *Playfulness*

Anti-Memorial offers the possibility of transforming spaces into places of creation and imagination. Its abstraction and quality of 'emptiness' allows for different uses of the site. This idea of playfulness is strongly linked with the importance of representing life and hope as part of the mourning and pain-soothing process.



Figure 2.10: Playfulness at Princess Diana Memorial Fountain

One of the most famous examples of playful memorial is the Princess Diana Memorial Fountain (PDMF) in Hyde Park, London, one of the current research case studies (Figure 2.10). The Royal Parks Agency website says its design will be 'fresh and imaginative'. It will reflect 'the person, the place, the surrounding historic landscape, and especially the qualities of water - movement, reflection, playfulness and its role as an essential element of life.'<sup>6</sup>

### 6- *Ephemerality and evolution*

Anti-Memorial inverts conventional design forms, stressing the quality of ephemerality or temporality as the main distinctive characteristic of its design approach. The importance of its abstraction and 'receptiveness' in converting the passive and fixed memorial space into an evolving and changing place is described by Elizabeth Strakosch. She noted that such memorials' abstraction positions the viewer as the active element, bringing their own understandings and interpretations to a receptive memorial site. This receptiveness allows these sites to accommodate changing understandings, and space is often provided for the addition of new elements to reflect evolving national histories (2011)<sup>7</sup> (Figure 2.11).

<sup>6</sup> Retrieved on 18<sup>th</sup> February 2013 from: <http://news.bbc.co.uk/1/hi/uk/2077222.stm>. It was quoted on the Royal Parks Agency website on 1<sup>st</sup> July 2001.

<sup>7</sup> From an article by Elizabeth Strakosch titled 'The Political Complexities of "New Memorial": Victims and Perpetrators Sharing Space in the Australian Capital'. Retrieved on 20<sup>th</sup> November 2011 from: [www.irmgard-coninx-stiftung.de/fileadmin/user\\_upload/pdf/Memory\\_Politics/Workshop\\_1/Strakosch\\_Essay.pdf](http://www.irmgard-coninx-stiftung.de/fileadmin/user_upload/pdf/Memory_Politics/Workshop_1/Strakosch_Essay.pdf).

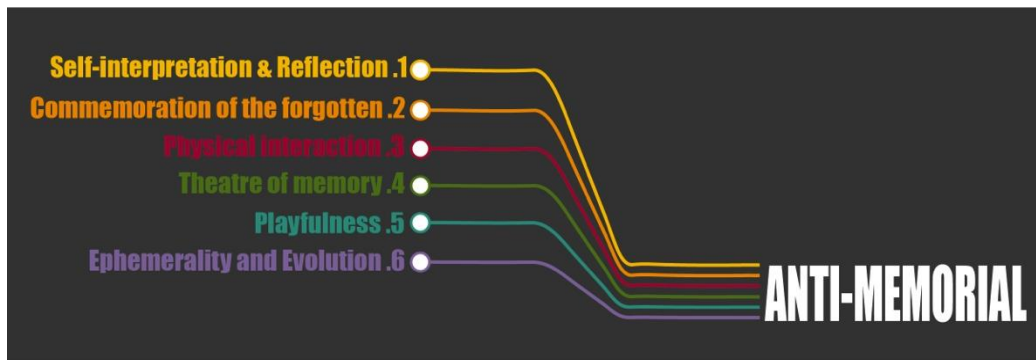


Figure 2.11: Characteristics of Anti-Memorial, developed by the researcher

#### 2.4.3 From traditional commemoration to Anti-Memorial

Most public nineteenth century monuments focus on particular historical events or heroic individuals; nevertheless they lack integration with social flux and changeability. This contrasts with the twentieth century memorial movement, which moved away from traditional allegorical works and celebrated figures on a plinth to more abstract and interactive means of commemoration (Michalski, 1999). While conventional memorial is related to the act of remembering, as a positive attitude toward a normal design process, Anti-Memorial expresses a wider 'subversive' and fluid range of states of forgetting (Ware, 2008). James Young describes the aim of Anti-Memorial as 'not to console but to provoke, not to remain fixed but to change, not to be everlasting but to disappear, not to be ignored by passers-by but to demand interaction, not to remain pristine but to invite their own violation and not to accept graciously the burden of memory but to drop it at the public's feet' (1997: 855).

In the context of Australian memorials, Sue-Anne Ware describes the recent history of Australian commemoration, which parallels the evolution of Australian history *per se*. This evolution signals the reorientation of the focus of history from the heroes of the nation to ordinary people and local communities (Bulbeck, 1992). 'The changing nature of both the meaning and the form of memorials allows further interrogation of whom Australians memorialize and how they choose to remember. With the growth of memorials based around personalized acts, the subject matter also shifts

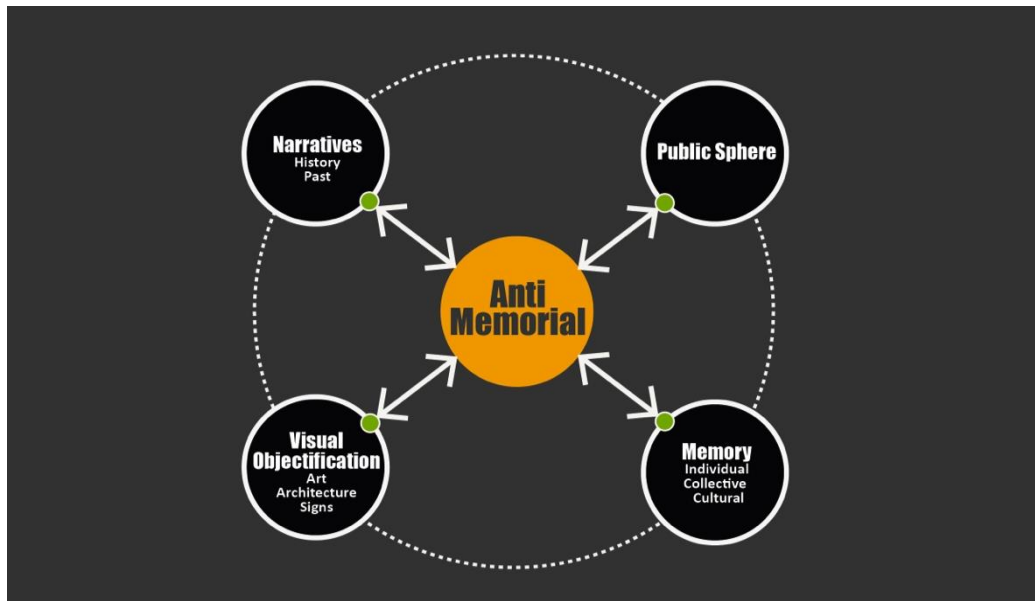


Figure 2.12: Subject fields in monument and memorial research. Adapted from Vickery (2012)

dramatically, from heroes of war and colonization to victims and social problems. In this way, anti-memorials intervene directly in political debate and promote social change' (Ware, 2004). Moreover, the formal memorial tends to favour '*nations of collective memory*' over '*otherness*' (Ware et al., 2004).

#### 2.4.4 Anti-Memorial fields of inquiry

By looking at different categories of study conducted around the concept of Anti-Memorial and Counter-Monument, it will become apparent how complex and controversial this subject is (Figure 2.12). Four main fields of inquiry have been described by Jonathan Vickery (2012):

### 1- *Memory study*

This area of research is increasing in interest, and 'memory', by which this study gains its meaning, has become one of the most important 'keywords' in the modern world. It is also responsible for assessing the 'cultural reproduction and transmission' of the meanings of remembrance throughout history (Vickery, 2012; Shanken, 2009).

### 2- *Visual objectification*

This includes any area of research focusing on object production, such as architecture, sculpture, heritage or fine art patronage. It is based around the physical realisation of historical memory, controlled by cultural and social revisionism.

### 3- *Narrative*

Narrative refers to both the story (i.e. what is told) and the means of telling, implying both the product and its process of realisation (Potteiger and Purinton, 1998). 'Narrative implies a knowledge acquired through action and the contingencies of lived experience' (Turner, 1981). Memorials, as a means of narrative, result from the interplay between natural processes and cultural practices and translate meanings and temporality into visual actions and stimulation.

### 4- *Public sphere*

Through this field we can describe monuments and memorials in terms of their *political aesthetics* or *public socio-cultural politics*. Despite the fact (in the researcher's opinion) that the public sphere is the most affecting subject in memorial-making, it is the least-studied among the above fields. As such, this research will focus on empirical study and memorial-making evaluation in the eyes of public perceivers, and their personal individual profiles (Figure 2.12).

#### 2.4.5 *Anti-Memorial and the notion of 'Mirroring'*

Some critics have pointed out that the notion of projection, or what psychoanalysts call 'mirroring,' is of importance in memorial design, as the intended audience are addressed by accommodating a projection of the individual on their semantic matrix (Dimitropoulos, 2009). Art critic Rosalind Krauss links the notion of mirroring with what is called the 'index,' which is the traces of the person in the memorial place, and the 'shifter', which is metaphorically the gap that the user is invited to fill in and hence be in the midst of the representation (Krauss, 1977). Mirroring is the physical and the

emotional expression of the internal representation (cognition, experience, knowledge etc.) of the person. Some contemporary memorial landscapes that embrace abstract design are considered a manifestation of 'index' and 'shifter' in Krauss's notation of 'mirroring'.

## 2.5 The concept of 'Counter-Monument'

### 2.5.1 Introduction

The term 'Counter-Monument' was coined by scholar James E. Young in the 1990s in response to the debate surrounding the concepts of contemporary memorial design in Germany in the last two decades of the twentieth century. This movement emerged in light of the worldwide monumental aesthetic struggle, and was also related to political and cultural debate in Germany following the Holocaust and the Second World War. Some German artists of this period, wrestling with the issue of remembering the Holocaust, chose intentionally to move away from the traditional monumental forms of memorialisation by which the Nazis disseminated state propaganda. Young wrote that these artists had 'a deep distrust of monumental forms in light of their systematic exploitation by the Nazis, and a profound desire to distinguish their generation from that of the killers through memory' (Young, 1993).

For the last 25 years, there have been many studies of the relationship between Germany's conventional monuments and its society. In these monuments, there is an



Figure 2.13: Aschrott-Bunnen, Kassel, Germany, by Horst Hoheaisel, 1989



Figure 2.14: A memorial for Nazi book-burnings, Berlin, Germany, by Micha Ullman, 1995

'authoritarian relationship' between members of a community or society and monuments, caused by the dictatorship of monuments over the 'collective memory' held by society. This does not allow society to formulate a communal interpretation of history that is reflected in their monuments. Michelle Leung claims that this relationship creates stereotypes and a distortion of Germany's identity, perception of itself, and its role in history, and she notes, 'Counter-monuments are non-representational and highly controversial. For this reason, I argue that the counter-monument movement in Germany serves a vital role in perpetuating a more democratized collective memory of the traumatic events surrounding World War II' (2011). She also adds that this problem of history distortion has been confronted by Counter-Monument artists, and that they attempt to create monuments that can inspire memories, rather than dictate them (ibid, 2011).

By staging the 'disappearance' or the 'invisibility' of monuments, the aim is to raise awareness that despite the fact that monuments strengthen our connection with history and the past, they can never replace public responsibility for 'critical recollection' and 'responsible remembrance' in the commemorative process (Sigel, 2005) (Figures 2.13 and 2.14). It is also possible to develop a new genre of monuments which can avoid a limited single perspective of the past and thus achieve more than merely an 'ideologically biased interpretation' of history. Part of the challenge of creating a new powerful monument involves the potential of the traditional monument to offer completion, or a false sense of closure. In this sense, monuments are constructed as a result of grappling complex political, social, and historical issues. There is a danger that this can result in a sense of contentment on the monument's completion, as an answer to these complex issues.

The general purpose of Counter-Monument aesthetic forms is to assist in bridging the gap between the monument and its viewers. Michelle Leung explained that such monuments 'insist on self-reflection of memories as opposed to a mere acceptance of them. Their customary abstractness holds viewers accountable for an interpretation of the event they are meant to memorialize, and in this way counter-monuments function to re-appropriate the burden of memory back unto society itself' (2011). James Young coined the term 'Counter-Monument' to refer to the diversion of contemporary artists to this movement from traditional monuments. Counter-

Monuments are usually in a form of abstract design. This means that they do not hold a perceptible form or directly seek to represent a complete message or image.

The discernible effect of the Counter-Monuments' aesthetic capacity is described by John Brunberg as usually not aesthetically pleasing. They are usually ephemeral, not permanent; some encourage people to interact with them (by writing, touching, bodily engagement etc.) and others invite desecration rather than sitting separately on pedestals or behind fences. Sometimes they try to capture a sense of loss through negative space – the experience of sheer emptiness. Thus, their designs are meant to engage their viewers/perceivers, often uncomfortably, in 'acts of personal remembrance and individual understanding of historical events' (Leung, 2011). So, they are not meant to achieve solace but rather discomfort. In other words, as Alexander Etkind explains, Counter-Monuments attempt to recall history through its production (and reproduction), and encourage viewers to play their own roles and develop a 'disposition' toward their 'post-traumatic culture' (2004).

There is a strong sense that monumentality in monuments is not only related to the internal aesthetic quality of the monumental object or event, but to something that the object inhabits in some way. Jonathan Vickery argues that monumentality is perhaps a result of a dynamic, constant relationship between the 'objects' acts of visual rhetoric and their resonance or political command of civil space' (2012). He noted this in light of one example, a memorial park in Budapest, Hungary, called Memento Park, designed by Hungarian architect Akos Eleod. This park provided a space for old monumental statues from Hungary's Communist period (1949-1989). The Soviet-era monuments in Memento Park are connected with various associations of powerful political and cultural imagery. The iconic power of Soviet monuments was considerable, and their role in civic-political life was perhaps as important as that of monuments of the late Roman Empire (ibid, 2012). According to Sergiusz Michalski, aesthetics in monumental form become truly political (1998).

Even though the physical form of Communist monuments in Budapest's Memento Park has not changed - it is still vivid, aggressive and no less awesome - it now seems silent and lacks the spirit of its monumentality. Memento Park is more than a site of lament. It is a place where Hungarians overcome the power of old monuments, which

are hence newly re-contextualised. Vickery describes a Memento Park monument thus: 'it stands divested, humiliated, and pathetic; its power has gone, but Hungary – a hesitant Hungary perhaps – is still there' (2012).

However, we are at the point of decline of the era of monumentalism, absolute authority and command aesthetics, and historical narratives and civic mythology, along with the 'cultural demagogue' responsible for their dissemination. Counter-Monument discourse always makes reference to these declining cultural aspects; they have become tools for the development of our understanding of Modernity and Post-Modernity (ibid, 2012).

### 2.5.2 A Counter-Monument chronological classification

According to Vickery, the concept of Counter-Monument is not limited to a specific art genre, or geographical context such as Germany. It could belong to the development of different discursive fields, e.g. 'urban design and architecture, civil or war memorials, modern abstract sculpture'. He classifies Counter-Monuments based on key examples from different eras within the twentieth century.

#### 1- *The classical modernist political Counter-Monument*

The concept of Counter-Monument actually started to emerge long before the Second World War; Mies van der Rohe's monument to Rosa Luxemburg and Karl Liebknecht of 1926 is one example, later destroyed by Hitler in 1933. Architect Mies van der Rohe introduced the spatial verticality of the monument – earthwards, not



Figure 2.15: Monument to Rosa Luxemburg and Karl Liebknecht, Berlin, Germany, by Mies van der Rohe, 1926

heavenwards – opposing the spatial orientation of the ancient 'religious statuary and theological pretensions'. The monument was also built using brick rather than stone, proclaiming its own 'embeddedness' via the material of the labour. Mies van de



Rohe's works of art can be said to be reminiscent of the Dutch '*de stijl*' movement (Figure 2.15).

## 2- *The post-minimalist Counter-Monument*

GORDON MATTA-CLARK / CONICAL INTERSECT

SPATIAL (DE)CONSTRUCTION

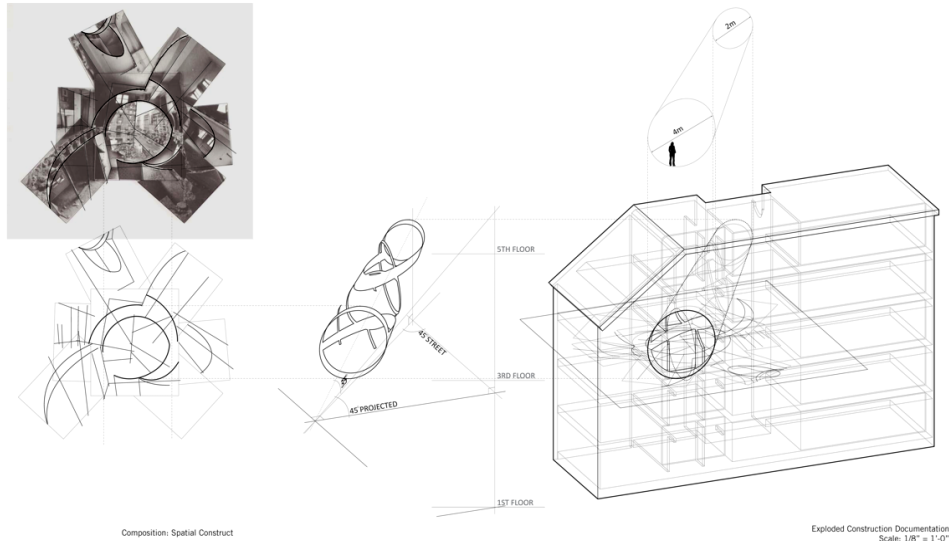


Figure 2.16: Conical Intersect, Paris, France, by Gordon Matta Clarke, 1975. Diagrams by Anesta Iwan

One example of this is a piece of monumental art by artist Matta Clarke, called Conical Intersect, from 1975. In this work, Clarke explored the aesthetics of monumentality and re-inscribed monumental form by the contact of 'extreme ephemerality and urban decay' (Figure 2.16).

## 3- *The German Holocaust monuments*

One of the most famous Holocaust works is the Memorial to the Murdered Jews of Europe in Berlin, designed by architect Peter Eisenman and built in 2005. It consists of a 11.7-hectare site, covered by 2,711 concrete slabs or 'stelae' arranged in a grid pattern on a sloping field. According to the project architect, the stelae are designed to produce an uneasy, confusing atmosphere,



Figure 2.17: Memorial to the Murdered Jews of Europe, Berlin, Germany, by Peter Eisenman, 2005

and the whole design aims to represent a supposedly ordered system that has lost touch with human reason (Figure 2.17).

#### 4- *The anti-fascist memorials*

In addition to acknowledging the experience of Nazism and other fascist systems, these memorials articulate a need for national contrition. The Monument against Fascism and for Peace in Harburg, Germany, designed by Joshen Gerz and Esther Shalev-Gerz in 1983, is one of the pioneering Counter-Monument works in the world. It was constructed as a four-sided steel column, 12 metres high. It was designed to be gradually lowered into the ground in eight stages between 10<sup>th</sup> October 1986 and 10<sup>th</sup> November 1993, until it disappeared completely. The outside of the column was coated with lead, on which residents and visitors were invited to engrave their names and signatures.

#### 5- *Memorial of the forgotten*

This type of Counter-Monument usually stands for either soldiers or victims of war, who are usually excluded from the official national rituals of commemoration. One example of this is Deborah Copenhagen Fellows' 1993 Korean War Veteran Memorial 1950-53 (Figure 2.18). It marks the 'Forgotten



Figure 2.18: Korean War Veteran Memorial 1950-53, by Deborah Copenhagen Fellows, 1993

War', with which the plaque in front of the memorial is inscribed. This example shows how the essence of the 'Counter-Monument' concept not only lies in its physical expression, but also in its political and cultural implications. Another commemorative subject of this genre of monuments can be the victims of specific social conditions, for instance the Anti-Memorial to Heroin Overdose Victims in Melbourne, organised by Dr Sue-Anne Ware of RMIT University in 2001. This memorial was constructed as a public event dedicated to mourning the loss of a group of people whose commemoration is not part of national memorialisation or civic rituals (Ware, 2006).

## 2.6 Contemporary memorial taxonomy: international memorial precedents, both proposed and built

### 2.6.1 Introduction

Contemporary memorial landscapes have been widely classified based on their political, cultural and aesthetic aspects. The researcher has chosen to categorise them in terms of their physical manifestations, as well as the way their subject meanings are transformed and translated through design elements, social and civic uses and rituals. The result is five categories of taxonomy, defined as follows.

### 2.6.2 A taxonomy of contemporary memorial landscapes

#### 2.6.2.1 *The invisible*<sup>8</sup>

In the mid-1960s, the concept of 'invisibility' in memorial design emerged as a result of the widespread feeling that political public monument had proved to be meaningless (Michalski, 1998). Visibility is considered an essential characteristic of public monuments in cultural stereotypes and public instinct. This means that monuments are thought of as standing proudly erect from the ground, sometimes rising high enough to be visible on the horizon. The invisible monument implies an end to



Figure 2.19: Memorial and Tomb for President John F. Kennedy, by Claes Oldenburg, 1965

2,500 years of the traditional visual experience of phallic monumentality. This new genre of memorial signals a prelude to the final abolition of the guise of traditional monument. These are some of the most popular contemporary examples of invisible memorials:

#### *Memorial for Poet Croniamantal (1916)*

In 1916, Guillaume Apollinaire published his book, 'The Poet assassinated', after the public murder of Poet Croniamantal. His adherents discussed the idea of erecting a commemorative statue in some form of subterranean structure in the forest of

<sup>8</sup> Most invisible memorial examples in this section stem from James Young's writings about Holocaust memory and memorials in Germany.

Meudon. It was to comprise a hole in the earth, sculpted to resemble the outer form of Croniamantal so that it could be 'replete with his spirit' (Apollinaire, 1916). This idea was discarded as being outmoded; nevertheless it acted as an inspiration for later memorials, e.g. Picasso's Wire Construction or Monument to Apollinaire (1928-34) and Oldenburg's underground Memorial to John F. Kennedy (1965).

*Memorial and Tomb for President John F. Kennedy (1965)*

This was designed by Claes Oldenburg in 1965, after the assassination of President John F. Kennedy. The designer envisaged a gigantic statue of President Kennedy, based on his photograph, upside down in the ground (Figure 2.19). The statue was designed to be the same size as the Statue of Liberty, which is referred to as popular American iconography. The idea was to suggest that Kennedy's murder had turned the American dream on its head (Michalski, 1998).



*Ulrichs' subterranean monument for himself (late 1980s)*

In 1981, West German artist Timm Ulrichs chose his own self as a subject for his art. In the early 1980s he proposed the idea of a subterranean monument, as a form of grave for himself, and exhibited it first in Bergkamen. In the late 1980s he presented the same concept in an artistic necropolis near Kassel (Habichthohe). He inserted a mould of his body, with his head upside down, similar to Oldenburg's Kennedy Memorial project. The soles of his shoes are fixed at the ground level to a thick plate of glass. This monument will accommodate the artist's ashes after his death.

Figure 2.20: Ulrichs' subterranean monument for himself, by Timm Ulrichs, 1980s

Sergiusz Michalski explains the reason behind choosing the motif of the soles of the shoes as Ulrichs' main catalyst for the concept of the monument. It is to evoke a 'philosophical reflection' on life in general and that of Ulrichs in particular. By doing

so, it is apparent that the artist used metaphors of 'imprint' or 'leaving his mark' in his idea (1998). Ulrichs proclaimed that 'having the monument at his feet the beholder will understand that this antipodic empty form relates to the living image like death to life' (Ulrichs, 1983: 74) (Figure 2.20).

*Aschrott-Brunnen fountain memorial (1985)*

In 1908, the Aschrott-Brunnen fountain in Kassel was designed by the city hall's architect, Karl Roth, and funded by a local Jewish entrepreneur, Sigmund Aschrott. It is a forty-foot-high neo-gothic pyramid fountain, with a surrounding reflecting pool, situated in front of the city hall. Because it was funded by a Jew, it was considered a 'Jews' fountain' and destroyed by local Nazis on the 8<sup>th</sup> and 9<sup>th</sup> of April 1939. In 1943, the empty basin of the destroyed fountain was filled up with soil and planted with flowers. From then on, it was called 'Aschrott's Grave' by the city's burghers (Figure 2.21).



Figure 2.21: Aschrott-Brunnen original fountain, by Karl Roth, 1908

In response to the fading memory of the fountain, and the difficulty of recalling the destruction of its original form, in 1984 the Society for the Rescue of Historical Monuments asked for some kind of restoration of the history of the fountain and its founders. In the same year, the city of Kassel invited artists to submit their proposals for restoring this monument and its memories. The most interesting submission was Horst Hoheisel's negative form memorial. In the very best tradition of 'Counter-Monument', Hoheisel described the concept and the form underlying his memorial:

'I have designed the new fountain as a mirror image of the old one, sunk beneath the old one's place in order to rescue the history of this place as a wound and as an open

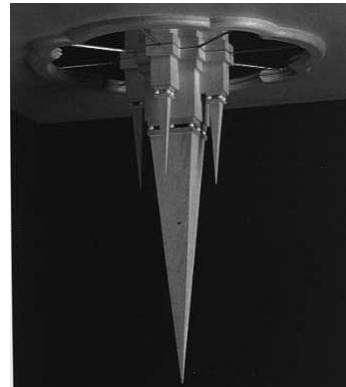


Figure 2.22: Negative form of Aschrott-Brunnen fountain monument, by Horst Hoheisel, 1989

question, to penetrate the consciousness of the Kassel citizens so that such things never happen again.

That's why I rebuilt the fountain sculpture as a hollow concrete form after the old plans and for a few weeks displayed it as a resurrected shape at City Hall Square before sinking it, mirror-like, 12 meters deep into the ground water.

The pyramid will be turned into a funnel whose darkness water runs down. From the "architektonischen Spielerei," as City Hall architect Karl Roth called his fountain, a hole emerges which deep down in the water creates an image reflecting back the entire shape of the fountain.' (Hoheisel, 1989, as quoted in Young, 2000)<sup>9</sup> (Figure 2.22).

Hoheisel has commemorated the monument's destruction with another destruction, and its absence by emptiness, literally producing a duplicated negative space. Young explained how we and our thoughts, rooted to the running water beneath our feet, become the only standing figures in the memorial's flat square. 'The sunken fountain is not the memorial at all,' Hoheisel says. 'It is only history turned into pedestal, an invitation to passers-by who stand upon it to search for the memorial in their own heads.' (Hoheisel, 1989).

It is in the very nature of Counter-Monument tradition that lies the potential for a transactional relationship between the users and the memorial environment, where all become one entity upon perceiving memorial meanings and values.

*Saarbrücken invisible monument*  
(1997)

In this memorial, and in other examples of invisible monuments, Gerz produced the concept of interior memorial, one that only



Figure 2.23: Saarbrücken invisible monument, by Jochen Gerz, 1997

<sup>9</sup> Originally from Hoheisel, 'Rathaus-Platz-Wunde'. Subsequent quotations from Hoheisel in Young's book on this memorial are drawn from this booklet.

exists in the mind and thoughts of the people, the mourner and those who always look for the truth. Similarly to Gerz's vanishing memorial in Harburg and the underground Nazi book-burning memorial in Berlin, people, the searchers for the truth, are the only form erected in the memorial emptiness. Gerz and his students searched for a list of all the Jewish cemeteries that were in use in Germany before the Second World War, with the help of 61 Jewish communities in the country. This list included 2,146 cemeteries, whose names were engraved on paving stones that had been removed from the alley crossing the square of Saarbrücken Castle, the seat of the Provincial Parliament. In its first stage, the work of removing the stone and engraving it with the cemeteries' names was carried out secretly and illegally by Gerz and his students at the Hochschule für Bildende Kunst. Gerze noted, 'The stones were removed at night and replaced with engraved ones. All stones were placed with the inscribed side facing the ground and therefore the inscription is invisible.'<sup>10</sup> Following a long debate, the project was approved by Parliament and retrospectively commissioned. In addition, Saarbrücken Castle Square in front of the Parliament was renamed 'The Square of The Invisible Monument' (Figure 2.23).



Figure 2.24: Original profile of the World Trade Centre

*The Twin Towers: A Theoretical Memorial (2003)*

Submitted by Gerard Kruunenberg and Paul Van der Erve to the World Trade Centre memorial competition, this design consists of two depressed shafts mirroring the image of the original Twin Towers, 110 stories deep. At the base of the shafts there is a contemplation space, reached by a lift that runs along the shaft's sides. These two open shafts have views to the sky, and are connected by a corridor linking to a staircase that brings visitors up to street level again (Stephens, Luna, and Broadhurst, 2005). Designers explain the psychological impacts of such a memorial:

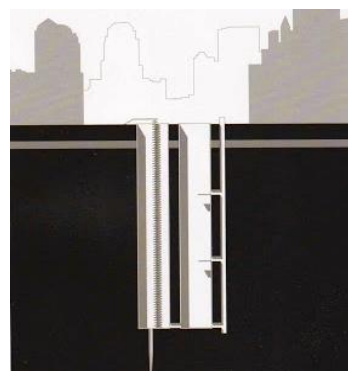


Figure 2.25: World Trade Centre Memorial, by Gerard Kruunenberg and Paul Van der Erve, 2005

<sup>10</sup> From Gerz's official studio website, <http://www.gerz.fr/>.



'In the depth of this location, one will experience the enormous and now absent mass of the former towers and in consequence, the impact of the tragedy.'<sup>11</sup> (Figures 2.24 and 2.25)

*The Harburg Monument against War and Fascism and for Peace (1986-1993)*



Figure 2.26: The Harburg Monument against War and Fascism and for Peace, by Jochen Gerz and Esther Shalev-Gerz, 1986 (Young, 2000)

This memorial has been widely cited and explained, in many of scholar James Young's writings about Holocaust memory and memorial, for its significance and importance in contemporary memorial design history in Germany. Jochen Gerz was one of four artists who were invited, in 1984, to design a Monument against War and Fascism and for Peace. A year after meeting sculptor and performance artist Esther Shalev, they agreed to work together to create a disappearing monument, one which challenged the 'monument's traditional illusions of permanence.' Shalev noted, 'What do we need with another monument? We have too many already. What we need is one that disappears.' (Young, 2000).<sup>12</sup>



Figure 2.27: Monument against Fascism and for Peace, Harburg, Germany, by Jochen Gerz and Esther Shalev-Gerz, 1983

<sup>11</sup> Retrieved on 3<sup>rd</sup> March 2013 from <http://www.2xu.nl/twintowers.htm>.

<sup>12</sup> From an interview by Young with artist Esther Shalev in 1986.



The main challenge for such an evolving memorial, as the Gerzes stated, was ascertaining how to commemorate such 'worthy sentiments' without the memory being ameliorated. They did not want to follow the usual anti-fascist monumental prototype of a pedestal with something written on it that told people what and how they must think and behave. In contrast, their design was to be a 'self-abnegating' monument.

The two artists erected a three-foot-square, forty-foot-high stele, made of hollow aluminium and covered by a thin layer of soft dark lead. This object was, at first sight, distantly reminiscent of a traditional monument on account of its column-like character. However, the artists invited passers-by to write personal or political remarks on the surface. The monument was successively lowered in the course of the following years, as it was covered by citizens' writings and signatures, and on the 10<sup>th</sup> of November 1993 it disappeared from the surface entirely (Figures 2.26, 2.27 and 2.28). Only the top of the column is now left, covered with a stone inscribed to 'Harburg's monument against fascism' (Young, 2000).



Figure 2.28: Memorial graffiti



Figure 2.29: Book-burning in Bebelplatz, 1933

The Gerzes emphasised the transactional nature of their design and the fact that the disappearing monument created an empty space for individual memories to exist, reflected and transferred. In this way, the monument gives the citizens of Harburg the responsibility of nurturing an active and critical political awareness; in the end, nobody but ourselves can accomplish the target of the commemoration. Hence, the



Figure 2.30: A memorial to Nazi book-burning, by Micha Ullman, 1996

monument provides a fluid space for moving thoughts and memories, between changing society and vanishing environmental materiality.

A temporary inscription at the bottom of the monument's column read, 'We invite the citizens of Harburg and visitors to the town, to add their names here to ours. In doing so, we commit ourselves to remain vigilant. As more and more names cover this 12-meter tall lead column, it will gradually be lowered into the ground. One day it will have disappeared completely, and the site of the Harburg monument against fascism will be empty. In the end, it is only we ourselves who can rise up against injustice.' (ibid, 2000).

#### *Memorial to the Nazi book-burnings (1999)*

On the evening of 10<sup>th</sup> May 1933, a Nazi book-burning ceremony took place in Bebelplatz, a public square in the central Mitte district of Berlin. Around 20,000 books were burned that day, including works by Thomas Mann, Erich Maria Remarque, Heinrich Heine, Karl Marx and many other authors (Figure 2.29).

In 1996, the city of Berlin invited artist Micha Ullman to design a memorial to the Nazi book-burning of 1933 in Berlin's Bebelplatz. His piece of work consists of a glass plate set into the square cobbles, offering a view to empty underground bookcases. In addition to this glass window, a line by Heinrich Heine, from his play *Almansor* (1821), is engraved on a steel tablet set into the stone: 'Where they burn books, they will in the end also burn people.' Young (2000) describes the nature of this memorial as a space '...empty of all forms except for the figures of people who stand there and peer down through a ground level window into the ghostly white, underground room of empty bookshelves Ullman has installed.' Young added that the shelves are still empty, and that it is the absence of both people and books here that characterises one more 'empty memorial pocket.' (Figure 2.30)

#### *2.6.2.2 The anti-phallic memorial*

##### *World Trade Centre Memorial (2011)*

This is a memorial to honour the people - more than 3,000 - who were killed in the terrorist attacks of 11<sup>th</sup> September 2001 on the World Trade Centre and Pentagon sites,

as well as the six people who were killed in the World Trade Centre bombing on 11<sup>th</sup> February 1993. It was designed by Michael Arad and Peter Walker after they won an international design competition held in 2003. A total of 5,201 entries were submitted from 63 countries.

Arad and Walker's memorial design consists of twin depressed reflecting pools, around an acre each, considered to be the largest manmade pools in North America, which sit in the footprints of the original World Trade Centre towers. The names of all the victims of the 2001 and 1993 attacks are inscribed on bronze panels which edge both memorial pools.<sup>13</sup> Surrounding these two massive reflecting pools is a plaza, planted with more than 400 trees, making it one of the most eco-friendly plazas ever constructed. It conveys a sense of hope and renewal and also a contemplative space away from the 'usual sights and sounds of the bustling metropolis.' As Arad points out in his initial design statement, these two 30-foot-deep voids in the flat plaza ground represent the physical and emotional destruction of the WTC towers. At the bottom of each void is a reflecting pool, fed by a sheet of water cascading from each side of the depression. Each reflecting pool is 'punctured by another square opening, in which water cascades further down in "depthless void."' <sup>14</sup> (Figure 2.31)



Figure 2.31: 9/11 Memorial, by Michael Arad and Peter Walker, 2011

Arad continues to describe the visitor experience at the memorial thus: they can either walk around the void looking down at the gigantic hole, or choose to descend underground to the reflecting pool level, through a tunnel-like structure, using stairs and ramps. The further they descend, the louder the sound of water, masking the

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<sup>13</sup> Design overview and description are derived from the official 9/11 memorial website, <http://www.911memorial.org>.

<sup>14</sup> From the design statement in Arad's memorial submission in 2003.

noise of the city. At the bottom of the tunnel they emerge behind a curtain of water as it hits the surface of the pool. In the initial design submission, Arad proposed a low stone parapet, by which the inscribed names of the victims would surround the surface edge of the pool, the only element separating visitors from the waterfall. In Arad's vision, as visitors 'stand there contemplating the tragedy that had occurred at this site, the sheer size of each space, and the length of the ribbon of names circling each pool, serve to physically underscore the enormity of the destruction' (Arad, 2003).

In terms of fitting in with the surroundings, the memorial provides a different view to that stated by the main competition guidelines: the design retains a continuity with the city by remaining at street level, with a large open public space surrounding the two massive reflecting pools. 'This will allow the site to function as a sacred memorial ground for those who descend to the memorial pools, and as a large open plaza, that will benefit the residents of the city in their everyday lives as they cross the site on their way to work or play' (ibid, 2003).

There has been little argument about Arad and Walker's 'Reflecting Absence' design in comparison to the controversy surrounding the Ground Zero site's masterplan as a whole; however, it has been hit by some criticism of its approach. This lack of controversy, as Joel McKim claims, may represent a failure rather than a success, because of the safe approach embraced by the memorial designers, following a collection of 'clichéd elements' derived from what has become a familiar tradition of 'contemporary memorial aesthetics' (2009). Suzanne Stephens, a writer for *Architectural Record*, wrote: 'Schemes appeared too similar, emphasizing waterfalls, and reflecting pools, beams of light, long planar walls with names carved in them.' Furthermore, she criticised the reliance on heavy symbolism: 'Water representing tears; beams of light for stars and victims' souls' (2004: 36-7). Philip Nobel points out that the memorial design proposal had to stick to the guidelines and limitations set out in the LMDC competition brief, and also to fit in with the whole site masterplan laid out by architect Daniel Libeskind. He suggests, 'Michael Arad had given back to the process that which it had already made' (2005: 252).

In light of this criticism, Joel McKim discussed the 'Reflecting Absence' proposal, drawing on the writings of the philosopher Giorgio Agamben about language, aesthetic, poetics and politics that were rarely discussed in 'current academic debate'. In McKim's view, 'Considering the inseparable mix of poetics and politics inherent in the attempt to build a memorial for Ground Zero, it seems an appropriate moment in which to return to the insights on questions of aesthetics provided by a writer who has altered the grounds of political theory' (2009). A discussion on Agamben's theories of aesthetics and language, and their reflection on contemporary memorial design, is presented in Chapter Three.

*Princess Diana Memorial Fountain (PDMF)*

This memorial will be described, analysed and discussed in detail in Chapter Six, as one of the three research case studies.

*Vietnam Veteran Memorial (1982)*

The Vietnam Veteran Memorial was designed by Maya Lin, following a competition held in 1981, and was built in 1982. Situated on a grassy slope of the Constitutional Gardens near the Lincoln Memorial, the memorial consists of a V-shape of two black granite walls submerged in the ground at an angle of 125 degrees. The walls extend almost 500 feet in length, with a maximum height of 100 feet at the central point. The names of the 58,196 men and women who died in the war are inscribed on the walls, listed chronologically by date of death. In 1984, another figurative sculpture, of three soldiers looking back towards the



Figure 2.32: Vietnam Veteran Memorial, Washington D.C., US, by Maya Lin, 1982



memorial walls, was added to the site (Figure 2.32).

Maya's design is in opposition to the code of remembrance at Washington Mall: all monuments are meant to be viewed from a distance and made of white stone. The Vietnam Veteran Memorial, however, is built below ground level, and is not visible until very close up. If approached from the back, it seems to disappear into the landscape. The memorial is not erected over the landscape: it is continuous and in harmony with the earth, and contemplative, not declarative.

The reflectiveness of the black walls of the memorial is a reference to the reflective pool of the Lincoln Memorial, and allows viewers to participate in the memorial, changing them from viewers to actors. Participants can see their images reflected on the walls and the list of names, and this makes them a part of the listing of the dead. Moreover, the tactile quality of the memorial surface induces visitors to touch the names and make rubbings of them (Starken, 1998). The spatial layout of the memorial walls allows various tributes to be placed along them, making literal physical and emotional contact between visitors and the names of their beloved dead. The 'transactional' values of the memorial are very apparent in its 'emptiness' and 'invisibility' and the gap and lack of meaningfulness it creates, inviting its acting mourners to be part of its narrative.

The construction of this memorial was accompanied by a storm of criticism by many critics of modernism, and raised questions about the role of modern sculpture in public commemoration. Prior to the dedication of the memorial in 1982, Tom Wolfe criticised the memorial design in the *Washington Post*, describing it as a 'tribute to Jane Fonda'. Wolfe and other critics compared the memorial to two unpopular and controversial works: Carl Andre's *Stone Field* piece (1980) and Richard Serra's *Tilted Arc* (1981). Some veterans and others saw the memorial as a strong political statement about the national defeat. It was called a 'black gash of shame and sorrow', a 'degrading ditch' and a 'slap in the face.' The reading of the symbolism of the elements and the colours of the design varies among perceivers: many see its black walls as a representation of dishonour, and its submergence beneath the ground as an indication of defeat. The main criticism of the memorial lies in its 'anti-phallic' presence, and its passivity, symbolising the 'unmentionability' of the war.

On the other hand, Starken opposes this passive reading of the memorial, and states that 'anti-phallic' does not imply that 'memorial is somehow a passive or "feminist" form, but rather that it opposes the codes of vertical monuments symbolising power and honour' (1998). In a favourable review of Maya's memorial, architecture critic Michael Sorkin wrote: 'Perhaps it was Maya Lin's "otherness" that enabled her to create such a moving work' (1983). In regard to its 'anti-phallic' quality, Maya Lin said: 'I wanted to work with the land and not dominate it. I had an impulse to cut open the earth ...an initial violence that in time would heal. The grass would grow back, but the cut would remain, a pure, flat surface, like a geode when you cut into it and polish the edge' (1985).<sup>15</sup> The huge - and increasing - number of visitors every year indicates the success of the Vietnam Veteran Memorial: over 150,000 people attended its dedication ceremony, and almost 20,000 people walk by its wall every month. It is the most-visited site in Washington Mall with an estimated 22-30 million visitors in total (Sanken, 1998).

### *Pentagon Memorial (2008)*

This memorial is dedicated to the victims of the attack on the Pentagon on 11<sup>th</sup> September 2001, and designed by Keith Kaseman and Julie Beckman. The site of the project was chosen by the victims' families precisely for its location: 200 feet from where American Airlines Flight 77, a Boeing 757, hit the Pentagon, killing 59 victims aboard the plane and 125 in the building.

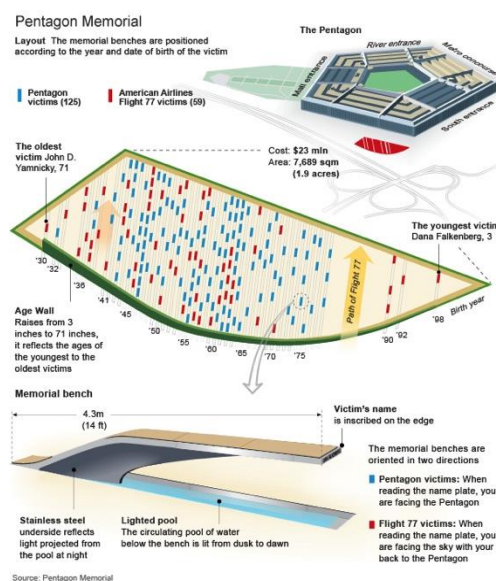


Figure 2.33: Design details of the Pentagon Memorial, by Kaseman and Beckman Architects, 2008

<sup>15</sup> As quoted in 'American rememberers: Vietnam Veteran Memorial.' National Geographic, May 1985, p. 557.

184 illuminated benches have been laid out in order of the victims' ages, from Dana Falkenberg, three years old, to John Yamnicky Sr., 71 years old, in a landscaped 7,800-square-metre plot. This symbolises the 184 victims, whose names are engraved on the benches. Those representing the victims inside the Pentagon are arranged so that visitors reading the names will face the Pentagon's south facade, where the plane hit; the rest, dedicated to victims aboard the plane, are arranged so that visitors reading the names will face the Pentagon building, along the path the plane travelled.<sup>16</sup> The original maple trees have been replaced by crape myrtles, which are fairly modest in size. This means that there is not too much shade in the memorial site, and less chance of it turning into a 'heat sink' during the summer (McKee, 2011) (Figure 2.33).

The designers have validated every element of the memorial layout: each bench symbolises a victim of the attack, the lines on the ground follow the plane's last approach towards the building, and the benches for the victims are arranged by age. Moreover, Bradford McKee describes the main path of the memorial as 'a crouching abstraction of horror. It is also a very brave thing to have included. It leads your eyes to the Pentagon's rebuilt west façade, which is clad on stone that is noticeably fresher in colour than that of the rest of the building' (2011).

#### 2.6.2.3 Ceremonial/phallic memorials

##### *7<sup>th</sup> July Memorial (7JM)*

This memorial will be described, discussed and analysed in detail in Chapter Six as one of the three research case studies. Its design conception and elements will also be illustrated.

##### *Memorial to the Murdered Jews of Europe (2005)*

The Memorial to the Murdered Jews of Europe, also known as the Holocaust

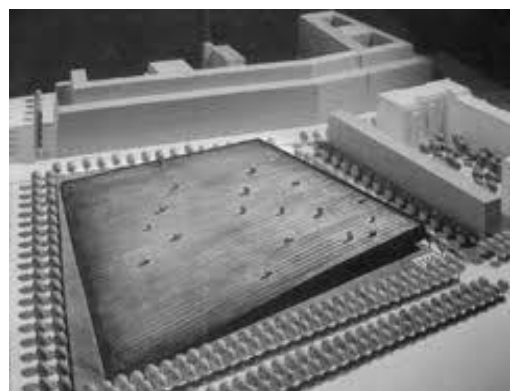


Figure 2.34: Square of the Six Million, by Christine Jacob-Marks, Berlin, 1994

<sup>16</sup> Shaughnessy, L. (23<sup>rd</sup> May 2008), 'Nearly complete Pentagon memorial tells story of 9/11'. Retrieved on 26<sup>th</sup> July 2011 from CNN.com.



Memorial, was the subject of 17 years of heated debate over its necessity and dedication, ending with its realisation in 2005 (Dekel, 2009). Over five hundred teams participated in a competition to design a memorial to the murdered Jews of Europe in April 1994. The proposal 'Square of the Six Million', designed by Christine Jacob-Marks, was the first to attract the jury's attention: a huge tablet, engraved with the names of the victims, rising up at an angle from the ground (Figure 2.34). Helmut Kohl, the Federal Chancellor at the time, rejected the project (Petrow, 2005). Another competition by invitation was held in 1997, and brought Peter Eisenman and Richard Serra's proposal to light. This also received both praise and vehement criticism at the time. After Richard Serra withdrew from the project, Eisenman reworked the design and reduced the sculpture, and his work was chosen for erection by the parliament in 1999.

The design constitutes 2,711 steles, arranged in a grid pattern in a sloping field of 4.7 acres. The steles are 2.38 metres long and 0.95 metres wide, and vary in height from 0.2 to 4.8 metres. There is a 'place of information' underground, telling the story of the Nazi persecution of Jewish victims (Dekel, 2009). The site of the project opposite the Tiegarten was part of the ministry gardens until 1945. Moreover, the 'death strip' of the Berlin Wall ran across the site from 1961 onwards. These steles developed their impact on many different levels (Figure 2.35).

Constanze A. Petrow (2005) describes the elements of memorial design and the effects that it generates in detail. The layout of the grid design and the crowded gravestones make a strong reference to Jewish cemeteries. This

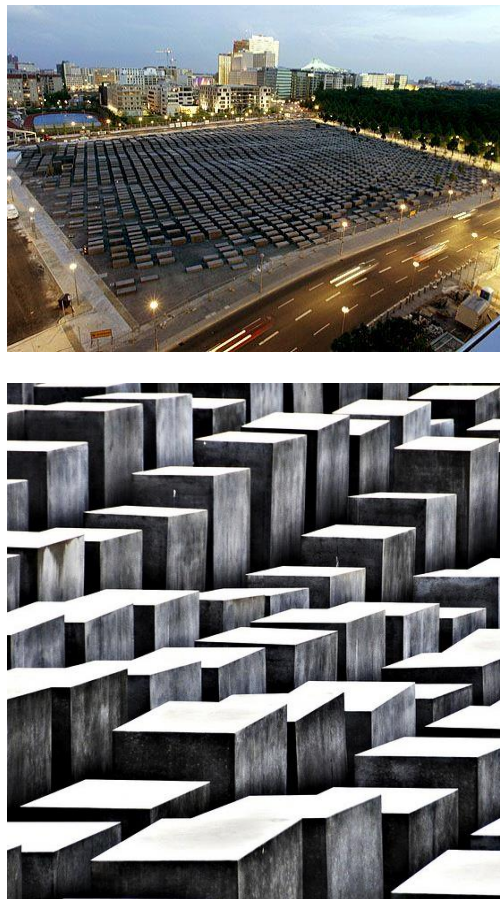


Figure 2.35: Memorial to the Murdered Jews of Europe, by Peter Eisenman, 2005

mass of 'violence and weight' changes the image from 'picturesque image of a cemetery' to monumental landscape. With regard to the concrete steles, they have a dusty, rough surface and velvety appearance. The patterns on top are mysterious, created by rainfall. What matters in this graveyard are the passages between the steles and the spatial experiences that they create.

Moving into the field of steles transforms 'superficial contemplation' into a spatial experience. The steles' footprint grid is interrupted by trees and paved surfaces. Where the ground level descends, the stones increase in scale and their height can reach 4.70 metres. The passages between the stones look uniform, as the paths undulate and tilt and the rationalism of the grid is broken up.

Petrow also describes how the existence of people transforms the site's atmosphere and brings it to life: 'When people step into the vistas and animate the site, this underscores the impression of the pale grove of steles as a city of the dead. Yet the stones are not oppressive or frightening; they do not form a claustrophobic space. In their midst it is above all cool and quiet. This quiet, contrasting strongly with the noise of the city all around, immediately creates a sense of absence and loss' (2005: 90).

Abstract memorial design, such as this, avoids creating any shock effects or feelings of horror or guilt. Because the memorial does not appeal to these immediate responses, it allows space for reflection and eases the process of mourning. Despite the fact that such design focuses on spatial experience and aesthetic and cathartic qualities, there is a danger of detachment from the main commemorative subject. Nonetheless, this makes dealing with its horrors possible, and forgetting, as a pain relief, more contingent.

#### 2.6.2.4 *The evolving memorials*

In this type of memorial, forms do not matter; the focus is instead on processes of transformation, movement and evanescence.



Figure 2.36: Denk-Stein-Sammlung Memorial Project, by Horst Hoheisel, 1988-1995 (Young, 2000)

'Evolving' is a word chosen by the researcher to describe the change in the materials of a memorial over time.

*Dank-Stein-Sammlung Memorial (Memorial Stone Archive), 1988-1995*

This memorial was meant to transform into the next generation, with a more pedagogical inclined form. The artist attained permission to visit Kassel local schools, carrying a book, a stone and a piece of paper. The book is a copy of 'The names and the fates of Kassel's Jews.' He read from the book stories of the Kassel Jewish community, who once lived there. Then the artist asked the students in the classroom to raise their hand if they knew any Jews. When no hands were raised, he started reading stories from his memory book, and then invited students to research Kassel's Jews and collect some basic information about their lives, what they had looked like, etc. Following this, students were asked to write short narratives about the people they had researched and their lives and deaths, and then wrap these around cobblestones and place them in an archival bin that the artist provided at each school. Over time, the bins started to overflow. Following the collection of several stone bins, they were transported to Kassel's Hauptbahnhof and installed on the rail platform permanently (Figure 2.36).

*Stolen Generation Memorial Competition (2001)*

Maintaining Aboriginality and indigenous identities has long been under examination in the central space of the Australian capital. This memorial competition was aimed at commemorating the indigenous children who were removed from their families following the arrival of Europeans in Australia. Around 140 entries were submitted to the competition from Australia and New Zealand. Sue-Anne Ware, one of the competition organisers and jury members, describes the competition as an illustration of 'how designers could offer alternative gestures in dealing with this difficult, racially charged and contested history' (2006).

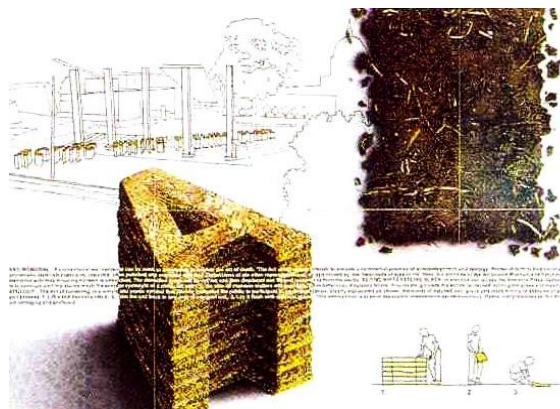


Figure 2.37: The Act of Uprooting, an entry for the Stolen Generation Memorial Competition, by Damien Pericles and Annabel Stanton, 2001

As the term and sense of 'place' did not exist in the case of the Stolen Generation, the competition brief referred to 'inflexibility' and 'ephemerality' as the main drivers for the memorial design proposals. It also opened up various possibilities for interactive formulas, where the viewer would be included in the memorial, and the observer's engagement and communication central to its success (Ware, 1999).

The outcome of this competition could be summarised in two dimensions: physical, in the form of a public exhibition of the short-listed entries and a website, and 'non-physical', with an increase in national awareness of this important historical event; the 'debate' surrounding its design and legibility was 'a memorial in and of itself' (Ware, 2006).

One of the noteworthy short-listed entries was 'The Act of Uprooting', a proposal by landscape architects Damien Pericles and Annabel Stanton. It proposed that the lawns of the Carlton Garden in Melbourne would be inscribed with the text of a famous Aboriginal song, 'Took the Children Away' by Archie Roach. The song lyrics would be cut, flipped and stacked across the museum forecourt entry plaza. Pericles and Stanton stated, 'The act of cutting, lifting and displacing the grass is a direct metaphor about the removal and dislocation of the Stolen Generation'<sup>17</sup> (Figure 2.37).

#### *Sichuan Earthquake Memorial (2008)*

A memorial to the 70,000 victims who died in the Sichuan earthquake was designed by Professor C.J. Lim and submitted to a competition held in May 2008. This proposal



Figure 2.38: Sichuan Earthquake Memorial, by C.J. Lim and Studio 8, 2008

<sup>17</sup> Retrieved on 11<sup>th</sup> March 2013 from <http://damienpericles.net/home/competitions/stolen-generations-memorial/>.



reached the final round, and has been praised for its brave temporal intervention.

Lim's main design forms are moving and floating. It consists of the 'Thousand Flowers of Sichuan', inflatable canopies that would float over the city of Wenchuan, the area most devastated by the earthquake. This theme is drawn from the motif of flowers as a symbol of remembrance and mourning. It is a vibrantly-coloured 'poetic skyline', intended to bring hope and reassurance about the ongoing reconstruction of Wenchuan and Sichuan to more than five million people who were affected by the disaster. Moreover, Lim's proposal provides a practical means of connecting the city, which has no transport infrastructure, shelter, daily food deliveries or drinking water for homeless people due to the inaccessible and uneven terrain (Figure 2.38).

As aid parcels are gently lowered to the ground, the floating flowers will immediately 'blossom', extending their petals to provide temporary shelters for aid distribution and canopies of sympathy to survivors who gather daily amongst the rubble to remember their loved ones.

Professor Lim described the potential of his design at the time of the disaster: 'It has only been about two months since the earthquake hit Sichuan Province – the community is still in mourning, and requires time to assess before starting the process of clearing away the devastation and rebuilding the city. Therefore unlike other remembrance landmarks in the past, this memorial proposal is temporary, functional and flexible – intended for multi-locations. Planning and construction of memorial landmarks takes time, but this proposal can appear

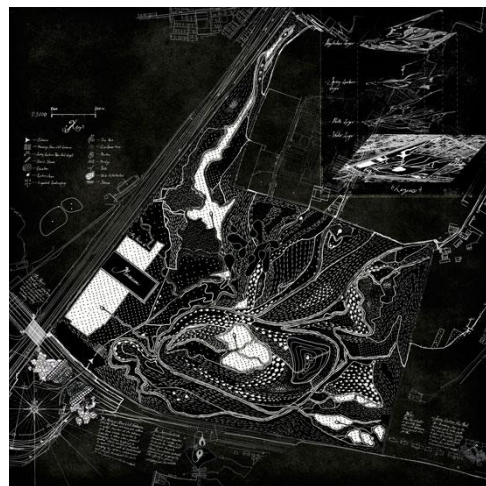


Figure 2.39: Tangshan Earthquake Memorial, by Kjellgren Kaminsky Architects, 2005

overnight.<sup>18</sup>

*Silent City: Tangshan Earthquake Memorial*

'Silent City' is a proposal for the Tangshan 1976 Earthquake Memorial Park in China. Designed by the Swedish architectural firm, Kjellgren Kaminsky, the park consists of interlocking layers of topography, vegetation, water, paths, swing lanterns and message stones. The swing lanterns stretch throughout the park as a contemporary interpretation of the traditional Chinese rice lamp, and are intended to symbolise hope and remembrance. At the entrance, 240,000 black stones are placed in metal meshes, so that visitors can write messages on them and choose a particular spot to place them (Figure 2.39).<sup>19</sup>

2.6.2.5 *Allegorical memorials*

*John F. Kennedy Memorial (JFKM) in Runnymede (1962)*

This memorial will be described, analysed and discussed in detail in Chapter Six as one of the three research case studies. Its design conception and elements will also be illustrated.

*Franklin Delano Roosevelt (FDR) Memorial (1974)*

In 1974, Lawrence Halprin was selected by the FDR Memorial Commission to design the 7.5-acre site adjacent to the Cherry Tree Walk on the western edge of the Tidal



Figure 2.40: Franklin Delano Roosevelt Memorial, by Lawrence Halprin, 1974

<sup>18</sup> Retrieved on 12<sup>th</sup> February 2009 from <http://www.ucl.ac.uk/news/news-articles/0809/08092201>.

<sup>19</sup> Retrieved on 20<sup>th</sup> July 2010 from <http://www.designboom.com/architecture/kjellgren-kaminsky-architecture-silent-city-tangshan-earthquake-memorial-china/>.

Basin in Washington DC. Halprin created a new sort of memorial, a sequence of four galleries or garden rooms, crafted in a narrative sequence to tell the story of the US during the four terms of Franklin Delano Roosevelt's presidency.

The memorial's rooms and water features, built primarily of red South Dakota granite, use stone to express the fracture and upheaval of the times. Water, in the form of cascades, waterfalls and pools, is a metaphorical component of the palette, with the volume and complexity escalating as the narrative progresses. The memorial also incorporates 10 bronze sculptures and 21 carved inscriptions, as well as quotations from FDR's speeches and radio talks. The sculptures, by Leonard Baskin, Neil Estern, Robert Graham, Thomas Hardy and George Segal, depict images from the Depression and Second World War, including a breadline and a man listening to a Fireside Chat on his radio. The memorial was dedicated by President Clinton on 2<sup>nd</sup> May 1997. In Halprin's New York Times obituary, the FDR Memorial was described as Halprin's favourite project<sup>20</sup> (Figure 2.40).

## 2.7 Conclusion

The arrival of the twentieth century and the First World War witnessed a change in the perception and expression of memorial design. In earlier times, classical memorials were designed to celebrate the victories and triumphs of a dominant regime, as part of an identical nation-building process. As such, they represented the national history and past in a way that maintained specific ideological and political views, delivered to the public in a wide range of figurative memorial forms.

After the Second World War, the question of the appropriateness of traditional memorial forms for commemorating war victims and soothing the sadness of their suffering societies was raised. Conventional memorial design approach, based on the literal interpretation of commemorative subjects, tended to soothe and appeal rather than challenge, and lacked emotional and poetic effects. It prevented more experimental and challenging memorial forms.

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<sup>20</sup> Retrieved from the Cultural Landscape Foundation website on 20th February 2013: <http://tclf.org/landscapes/franklin-delano-roosevelt-memorial>.

As a result, new memorial design approaches have emerged. They are based on ephemerality rather than permanence, flexibility rather than rigidity. The changing nature of memory and political and environmental landscapes implies new design discourse. In 1982, the Vietnam Veteran Memorial, designed by Maya Lin, was the first and most controversial modern memorial design in history. Since the mid-1980s, the concepts of 'Anti-Memorial' and 'Counter-Monument' have been explored and introduced by designers as new forms of personalised acts. They encourage multiple interpretations of historical events, interaction, public engagement, ephemerality, changeability and user-place transaction.

As part of this research, a classification or taxonomy of five types of contemporary memorial landscape has been created: invisible, anti-phallic, phallic or monumental, allegorical and evolving. It is based on memorials' physical expressions of events, and the way that their meanings are expressed, transmitted or transformed by memorial

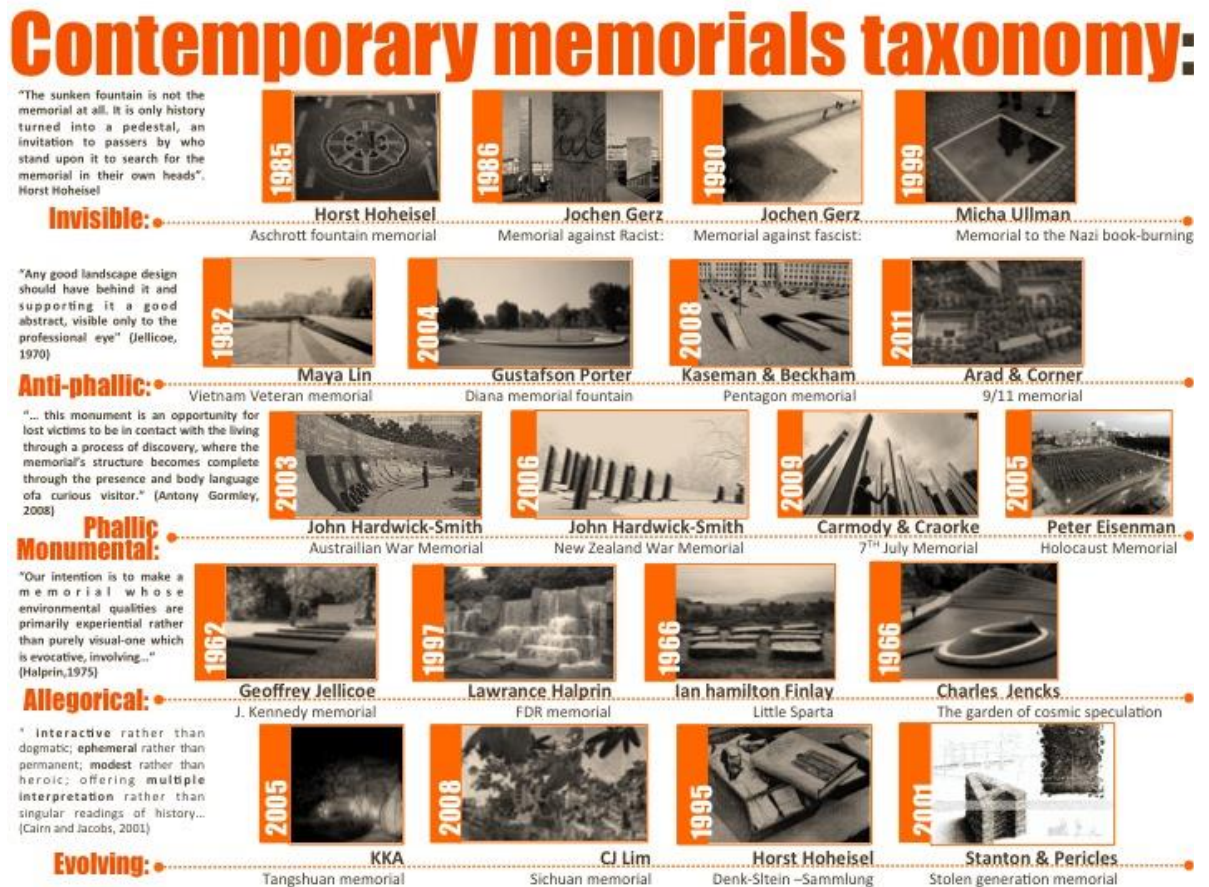


Figure 2.41: The researcher's taxonomy for contemporary memorial landscapes



design elements. However, this classification is not ultimate, and the distinction between these categories is blurred and in constant flux, with possible overlapping of components.

Literature review and the exploration of gap in body of knowledge around memorial design in addition to personal life narratives and experience will help to address research aims and questions presented in next chapter.

# CHAPTER THREE:

## Research Argument, Theoretical Framework, aims and questions

### 3.1. Introduction

This chapter will present the research argument, which highlights the necessity of the current study and the gap that it fills in the literature, as well as the research questions and aims. Moreover, it will describe the research theoretical framework, which includes *case study methodology*, *theory of transaction*, *affordances*, *personal projects analysis* and *IXIA art evaluation project*, as a starting point for examining the qualities that contemporary memorial landscapes hold as social, political and cultural debating arenas. This is in order to attain more insight into people's experience of and relationship with commemoration environments, as well as their participation in memorial processes.

### 3.2. Research argument

Minimalism, as a way of condensing meanings into pure and abstract forms, has been embraced by contemporary designers and artists when expressing their visions and metaphoric thoughts. Referring to Maya Lin's design of the Vietnam Veterans Memorial, which was built in 1982 and was the first of its kind, Douglass said: '[T]he Vietnam memorial utilized a minimalist approach in juxtaposition to the standard colossal-scale monument as a way to provoke the visitor to reflect upon the significance of the event, to be active rather than passive as a participant in acquiring the message.' (LMCCC, 2003).

Table 3.1: Supporting and opposing views of modern memorial landscape design approach

Against !	With !
<p>• <b>J. William "Bill" Thompson</b> I have become increasingly sceptical about the capacity of the <b>rigidly formal</b>, highly finished memorial to inspire profound feeling." (2008)</p> <p>• <b>Kieran Long</b> "...<b>minimalism</b> ...fails to provide the <b>meaningfulness</b> necessary for a powerful monument." (2007)</p> <p>"<b>Abstraction</b> may or may not counter grief, but it will certainly not help with remembrance. The tendency towards abstraction is exactly to remove the representational aspects of an artwork that tie it to a specific culture, time and place." (2007)</p>	<p>• <b>Julian Bonder</b> They are not project for silent and symbolic sites of memory but agents for active dialogue." (2009)</p> <p>• <b>Harris Dimitropoulis</b> "...<b>minimalism</b> both eschews referentiality and provides a s perfect surface for the projection of our egos and desires. It functions in a specular manner, <b>mirroring</b> us to ourselves, thus providing an effective strategy for contemporary memorials" (2009)</p> <p>• <b>Julie Lovine</b> "Society today...is too diverse as well as too inclusive to allow for a more figurative or symbolic language for memorials." (2003)</p>

It was not only minimalism that was significant to modern memorial design; the presence of 'invisibility' and 'anti-phallic' were also important, as Sergius Michalski (Michalski, 1998: 172) and Marita Sturken (Sturken, 1998: 361) have described. Instead of being prominently erected above the ground as in the past, memorials became integrated into the landscape: part of its natural context, and continuous with the earth. As Sturken described, the anti-phallic presence of the Vietnam Veterans Memorial opposes 'the codes of vertical monuments symbolizing power and honor...it is contemplative rather than declarative' (Sturken, 1998: 361). Moreover, this type of symbolism is open to personal interpretations and indefinite explanations, based on people's culture, cognition and values. Regarding his design of the Holocaust Memorial in Berlin, Peter Eisenman said: 'there is no goal, no end, no working one's way in or out. The duration of an individual's experience of it grants no further understanding, since understanding is impossible' (Stevens, 2007: 19). This kind of memorial demands that visitors move through the space and interact with it rather than having a static position and fixed view.

On the negative side, from other critics' point of view, minimalism can be considered meaningless and inappropriate for designing powerful memorials; for instance, Kieran Long criticised the way that modern memorial is being designed, arguing that

'minimalism has come to be the language of universalism, which is deemed appropriate for monuments now that societies are afraid of being seen as exclusive...But minimalism, while contemplative and seemingly universal, fails to provide the meaningfulness necessary for a powerful monument' (Long, 2007). Long wrote about the Princess Diana fountain in London, another controversial abstract memorial. He saw the design as empty minimalism, saying: 'This design foregrounds the visitor's psychological powers of reflection, rather than aspiring to teach them anything about the event itself' (Long, 2007). Moreover, in his writing on the Ground Zero project, he stated that the problem with memorials as abstract as the World Trade Centre memorial is their ambiguity and meaninglessness and that hardly anyone but the architects themselves can grasp their meanings and proposed intention (ibid). Nicolai Ouroussoff, in his article 'The Ground Zero Memorial, Revised but Not Improved' in the New York Times, criticised Arad's scheme for Ground Zero as being 'stripped of its meanings', suggesting that the memorial would act as a huge underground museum exhibiting the 'relics' of 9/11 (Ouroussoff, 2006).

The ambition of the current research is to weigh in on this debate about the design aspects of contemporary memorial landscapes. The aim is to investigate how contemporary memorial communicates meanings with its users and delivers high didactic and cathartic qualities. It hypothesises that, through its narrative quality, landscape contextual approach and empowering of the subconscious, contemporary memorial design has the ability to engage users in the memorial process and create a powerful commemoration experience. Table 3.1 represents different scholars' points of views, including both support for and opposition to the minimalist approach in memorial design.<sup>21</sup>

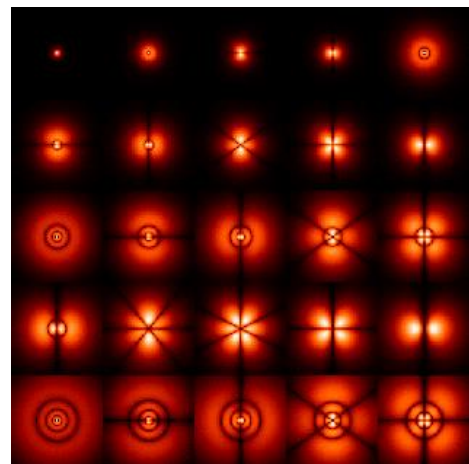


Figure 3.1: Levels of energy and angular momentum possessed by electrons in a hydrogen atom

<sup>21</sup> These points of views are collected in the light of various contemporary memorial case studies on which different scholars have reflected in the literature.

### 3.3. Theoretical framework

#### 3.3.1. *Theory of transaction*

##### 3.3.1.1. *Introduction*

*'Behavior, places, and temporal dynamics are mutually interlocked such that behavior gains meaning by virtue of its location in a particular spatial and temporal context, and the context gains meaning by virtue of the actors and actions that exist within it' (Altman and Rogoff, 1987).*

In psychology, transaction is defined as *'the study of the changing relationship among psychological and environmental aspects of holistic unities'* (ibid). In memorial places, mind, person and place contribute hand in hand to the commemoration process. The theory of transaction looks at perception and behaviour toward an environmental stimulus as a product of the interplay of two sets of intertwining variables, those in the immediate environment and those of the person (Lazarus, 2006). In this system, each set gleans meanings and recognition from others and has equal physical and psychological influence and responsibility. Murphy stated: *'We cannot define the situation operationally except in reference to the specific organism which is involved. We cannot define the organism operationally in such a way as to obtain predictive power for behavior, except in reference to the situation'* (Murphy, 1947). This view highlights the difference between interaction, a state of two or more variables influencing each other, and transaction, which results from the meanings that a person constructs from their relationship with the environment. Therefore, although interaction is of importance in place making, transaction is the aspect by which shared memory and history are created. These values, obtained from the transactional process, are called *'relational meanings.'* Relational meaning involves the conjoining of two sets of variables, thus considering both the environmental conditions and the properties of the person when making an appraisal or evaluation of the perceived world.

Dewey and Bentley (1949), Pepper (1942, 1967) and Altman and Rogoff (1987) all examined the worldviews that underline research and theory in psychology (see Table 3.3). According to Altman and Rogoff (1987), the worldviews termed *trait*,

*interactional, organismic and transactional* are associated with different assumptions in psychology and its units of study, different conceptions of person-environment relationships, different views in philosophy and goals of science and different

Table 3.2: Philosophical approaches to psychological phenomena (Altman and Rogoff, 1987)

Dewey and Bentley	Pepper	Altman and Rogoff	Definition of Psychology
<i>Self-action</i>	<i>Formism</i>	<i>Trait</i>	<i>The study of the individual, mind or mental and psychological processes</i>
<i>Interaction</i>	<i>Mechanism</i>	<i>Interactional</i>	<i>The study of the prediction and control of behaviour and psychological processes</i>
	<i>Organicism</i>	<i>Organismic</i>	<i>The study of dynamic and holistic psychological systems in which person and environment components exhibit complex, reciprocal, and mutual relationships and influences</i>
<i>Transaction</i>	<i>Contextualism, Selectivism</i>	<i>Transactional</i>	<i>The study of the changing relations among psychological and environmental aspects of holistic unities</i>

methods of study and research.

The transactional views are of wide appeal to scholars in various fields, especially environmental psychology, given that discipline's emphasis on the molar physicality in relation to human behaviour. Ittelson (1973) insisted: 'Man is never concretely encountered independent of the situation through which he acts, nor is the environment ever encountered independent of the encountering individual. It is meaningless to speak of either as existing apart from the situation in which it is encountered'. Prosansky added: '[U]nderstanding the mutual relationship between human behavior and experience and the dimensions of physical settings is necessarily rooted in the methodology which preserves the integrity of these events' (Prosansky,

1976). Barker (1968) was one of the first to investigate these propositions empirically. He examined psychological processes in different environmental settings, in which behaviour is linked with social and physical environment in a continuous transaction. Hence, in order to understand phenomena, much attention should be placed on behaviour and the description of the units of psychological processes functioning in environmental settings.

Stokols and Shumaker (1982) illustrated some aspects of transactional worldviews, developing a 'holistic taxonomy of places' that link their geographical and physical properties with actors, psychological processes and social and cultural meanings. This was complementary to the concept of the 'subjective life stage' of context that Stokols (1981) had used. The use of 'context' spatially and temporally is related to participant intention, goals and personal activities and processes. Thus, using the personal projects analysis created by Brian Little (1983, 1989, 1993, 1998, 2000) as another research method to formulate the current study would complement the theoretical and methodological principles of transactional views.

#### 3.3.1.2. *Theory of transaction and psychological worldviews*

It has been stated that interactional and transactional approaches have been more of a characteristic of modern science than trait perspectives (Dewey and Bentley, 1949). *Trait* (similar to self-action in the Dewey and Bentley study and formism in the Pepper study) assumes that physical and social phenomena are governed by internal 'essences, self-power, forces' or intrinsic qualities inherent in the organism or phenomena, while interaction embraces the fact that physical and psychological elements exist independently of one another but nevertheless accepts that their functioning is influenced by interaction with other elements (Altman and Rogoff, 1987). Transactional perspectives assume inseparable relationships between contexts, temporal factors and physical and psychological phenomena. Unlike interactional views, where phenomena are influenced by contexts, transactional orientations include context, processes and temporal qualities of phenomena as aspects of integrated unity. Persons, processes and environments are conceived of as aspects of a whole, not as independent components that combine additively to make up a whole (ibid).

### 3.3.1.3. *Transaction, change and time*

In transactional perspectives, the emphasis is on processes and activities, or people carrying out actions in relation to their social and physical environment. Therefore, according to this theory, actions are more important than the static existence of separate units of physical environment. Dewey and Bentley maintained that the temporal qualities of a phenomenon embody the flux and dynamics of people's relations with social and physical settings (ibid), whereas in interactional approaches, time is treated separately from phenomena, and only provides a backdrop for its processes.

The appropriateness of applying transactional approaches to memorial context arises from the nature of person-environment relationships at places of memory. It is not what people are, but how they think, remember and behave that matters. History and time are manifested at memorial landscapes, and this is what allows them to serve as historical arenas for actions and changes. In Pepper's contextual approach, which is similar to Dewey and Bentley's and Altman and Rogoff's transactional theories, the root metaphor of contextualism is the historical event, embedded in its context and unfolded over time. Pepper stated that the historical event is a holistic phenomenon whose parts are connected in an inseparable way. (Pepper, 1942).

Lazarus (2006) described the concept of transaction as a 'relational meaning' in order to distinguish it from interaction and point out that the appraisal of environment by a person is an evaluative process by which relational meaning is constructed. He stated that transaction adds a personal connotation to the perceived event, as appreciation adds meanings to the world perception. Appreciation is a temporal process that occurs over time as a result of evolving transaction between persons, psychological processes and context (Lazarus, 2006). The personal state of mind changes continuously, based on the person's social and physical experience; this stresses the necessity of studying how a system is transformed rather than its current state or final predetermined form. Lazarus's concept of time in relational meanings is basically similar to Altman and Rogoff's, in the sense that the transactional view shifts



from analysis of the causes of change to understanding change as an inherent component of a system.

#### 3.3.1.4. *Conceptual metaphors*

Altman and Rogoff made an analogy between transaction perspectives in psychology and quantum and relativity theories in physics, all of which focus on the 'field' or changing configuration of energy. Modern studies suggest that particles present 'momentary and changing nexuses of energy and activities' (see Figure 3.1). From this scientific viewpoint, there are no 'real' particles; instead configurations of energy are distributed and redistributed. Similarly, transactional orientations in psychology stress the evolving configuration of persons, psychological processes and contexts (Altman and Rogoff, 1987). This analogy was supported by Dewey and Bentley; in their theory, rather than focusing on the static characteristics of psychological entities or 'particles', transactional approaches deal with the changing processes of person-environment relations (Dewey and Bentley, 1949). In this current study of contemporary memorials, the researcher will deal with each event component (person, psychological process and context) as a source of energy, continuously transferred to others, rather than a separate physical entity.

The analogy between environmental and reading events is noteworthy. In the study of transaction in education and literature, the focus is on the action of reading rather than the independent text and reader. It is what the text allows the reader to think, and what the reader interprets and adds to the meaning of text, that are the units of analysis in this transactional event. Rosenblatt (1994) claimed that the important role that the reader plays in the reading event has not received much attention over the centuries. The reader/actor has tended to remain invisible, while the poet/designer and text/environmental setting are usually the subjects of focus. However, the emphasis on 'feelings and creativity' which shape the reading process gives the reader a unique effective role (Rosenblatt, 1994).

#### 3.3.1.5. *A philosophical conception of transactionalism*

Rychlak (1977) described Aristotle's fourth conception of causation, formal cause, on which transactional views rely, as 'a pattern, shape outline, or recognizable organization in the flow of events or in the way that objects are constituted...Natural

objects and behavioral sequences are clearly patterned outlines, recognizable styles or this or that significance to the viewer, who comes to know them as much by these features as by substantial nature (material cause) or the fact that they are assembled (efficient cause)' (Rychlak, 1977). This relates to the nature of transactional views, i.e. looking at the event as a whole without analysing its components separately.

Patterns and forms of a system are recognised across all environmental and psychological processes. Transactional approaches seem compatible with Aristotle's formal causation, in which new and emergent principles are considered in addition to any general rules applied to the event. For instance, this researcher, throughout the pilot study, found that unpredictable principles such as nostalgia and personal life stories rule how people understand and appreciate the meaning of memorial design. This is what makes person-memorial relations unique and dynamic. Altman and Rogoff (1987) stated: 'the focus is...on the event with acceptance of the possibility that different configuration of principles may be necessary to understand different events. Transactionism adopts...a pragmatic, eclectic, and relativistic approach to studying psychological phenomena' (Altman and Rogoff, 1987).

#### 3.3.1.6. *Behaviour setting in transactional approaches*

Behaviour setting is defined as: 'A bounded, self-regulated and ordered system composed of replaceable human and non-human components that interact in a synchronized fashion to carry out an ordered sequence of events called the setting program' (Wicker, 1979: 12). Thus, in transactionalism, behaviour settings are defined as patterns of actions in relation to places and contexts; these actions are organised in a temporal and systematic manner. Barker (1968) used the game of baseball as an analogy; instead of focusing on the elements of the context in order to understand the game, the behaviour setting(s) of the whole game were studied, thus patterns of behaviour became visible in the context of places and time (Barker, 1968, cited in Altman and Rogoff, 1987).

In transactional approaches, as Barker described, there is no predetermined 'long-term ideal condition' at which the behaviour setting is directed. Instead, it has a changing quality without prediction or forecasting (Barker, 1968). This changing quality is explained by Wicker (1979) through studying the 'life history' of behaviour

setting. It goes through many phases, from 'formative' through 'operating' to 'dissolution or divergent'. Accordingly, the behaviour setting at memorial landscapes can be defined as the social, psychological and physical temporal processes of memorial meanings across the elements of the system, by which specific behaviours, reflections, or thoughts are expressed.

Steven C. Hayes et al. (1988) described Pepper's contextualistic system and its relation to behaviour analysis. Neither Pepper's contextualistic approaches nor Altman and Rogoff's transactional views distinguished between settings as 'stimulus events' and other participants in events. Hayes et al. (1988) introduced the concept of the '*operant*', which is defined as 'a relation among behavior and stimulus events' (Hayes et al., 1988: 101). In contextualistic and transactional approaches, this integration between behaviour and behaviour settings is crucial to analysing the social, psychological and physical processes of an event. 'It is not an act conceived as alone or cut off that we mean; it is an act in and with its setting' (Pepper, 1942, cited in Hayes et al., 1988: 101-2). Accordingly, an analogy can be drawn between behaviour setting and a theatre stage, where actors perform and express their personality and identity. Hence, in this study, participants will be referred to as actors in order to emphasise the active nature of transactional phenomena.

#### 3.3.1.7. *Rethinking memorial aesthetics in the light of Agamben's philosophy*<sup>22</sup>

Memorials and monuments occupy an uncertain position between social and aesthetic, and there have been many attempts to determine their place within the theory of art (McKim, 2008). Alain Badiou's ideas on memorial aesthetics stress the necessity for them to serve either a 'didactic or cathartic' function (Badiou, 2005, as cited in McKim, 2008). Joel McKim believed that the problem of many memorial designs lies in their attempt to perform both functions; he gave the example of the Ground Zero memorial, which both instructs and initiates a healing process. He suggested an alternative path out of the cycle of thoughts surrounding contemporary

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<sup>22</sup> Agamben theory and its relationship with contemporary memorial politics and aesthetics, and the various ideas presented in this section, were presented and argued by Joel McKim in his article 'Agamben at Ground Zero: A memorial without a content' (2008).

memorial landscape aesthetics, based on Giorgio Agamben's philosophy and developed via reflection on issues concerning language, poetics and aesthetics.

Memorial design, with its social and aesthetic functions, helps to question the status of memorials and monuments within art theory. The fact that memorials are designed to perform certain social and political functions prevent their acknowledgment as artworks. Noel Carroll wrote: 'something is an artwork if and only if it is designed with the primary intention of affording or having the capacity to afford experiences valuable for their own sakes' (2005: 1). In this context, social and political dimensions are excluded from the artistic experience. This is strongly related to the debate over the relationship between art and truth.

Badiou suggested three schemata for describing art's changing relationship with truth that occur within different guises of Western thought. First is the didactic schemata, beginning with Plato, emphasising that art is incapable of truth. McKim added that in this case, art becomes education controlled by truth, not from art itself, but from philosophy (2008). Second is the romantic schema, where art alone is capable of truth and provides access to 'a truth that philosophy grasps for, but ultimately fails to attain.' (ibid: 87). Badiou argued, '[I]t is art itself that educates, because it teaches of the power of the infinity held within the tormented cohesion of a form' (2005: 3).<sup>23</sup> The third schema is the classical, created by Aristotle. This eases the tension between art and truth by claiming that the purpose of art is not truth but catharsis. Badiou stated that the removal of truth from the realm of art that this schema suggests could reduce art to the level of public service, treating human souls or psyches.

All the above-mentioned scholars remained sceptical about the power of combining didactic and cathartic schemata, or of conjoining aesthetic and political fields in contemporary memorial practices. The question McKim raised was this: could Agamben theory provide an alternative modality to replace the prevailing assumptions related to memorial aesthetics?

Agamben, in his work *The Man without Content* (1999), presented a distinction in Greek between the notions of *praxis* and *poiesis*. *Praxis* is related to the process of

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<sup>23</sup> As cited in McKim (2008).

production as a result of 'will', while *poiesis* was described by Agamben as an 'experience of production into presence, from concealment into the full light of the work' (1999: 68-9, as cited in McKim, 2008: 90). According to Agamben, art is not a given value of truth but 'a mode of truth understood as unveiling' (1999: 69, as cited in McKim, 2008: 90). *Praxis* relates to revealing the willed truth in a space, opened by the process of *poiesis*. Agamben's thoughts have already blurred the boundary between Badiou's romantic and classical schemas. *Poiesis* is concerned, according to Greek conception, with bringing something into being that is outside itself and the sphere of human being (ibid: 91). McKim added: 'Crucial for Agamben is that the truth process of...poiesis is precisely not the expression of will, but is instead a power of production into space that is a prerequisite of praxis' (2008: 91). Agamben's theory highlighted the problem of modernity, which distinguishes creation from reception and alienates art from its society.

#### 3.3.1.8. Transaction in contemporary memorial landscapes

One of the most important aspects of the study of memorial landscapes is the meanings that these places evoke, and how they are understood by people from different cultures, religions and social backgrounds. Home and ritual places in any

Table 3.3: Pepper's categories of contextualism (1942) as reviewed by Hayes et al. (1988)

Contextualism				
Quality		Texture		
The experience nature of an act		The details and relations that make up its quality		
Spread	Fusion	Strands	Context	Reference
The extended present of an act in context	The integration of the textural details of a given event	The interconnections among the details of an act that directly contribute to its quality	Is made up of the interconnections among strands, contributing indirectly to the quality of a given act	Concerns the temporal relations...among the details of an act, specifically their point of initiation, course, and satisfaction

community create a unification of people, places and psychological and social processes. Saile (1977, 1985) provided an example of how in the Pueblo culture in the US, rituals associated with building a home link the home with ancestral history, present and future, and strengthen ties between community members and their ancestors. In this example, people and place become one entity, and we cannot understand one without the other. In memorial context, behaviour settings become manifestations of different values and beliefs, and arenas provide space for their conception, expression and competition.

In memorial design type and approach, some of these conceptions are either integrated into the place or naturally excluded from its identity. In phenomenological and transactional approaches, the aspects of person-environment relationships are 'subjective and experimental' and related to personal and communal meanings and feelings of attachment. 'People are their place and place is its people.' (Ralph, 1976: 34). Tuan (1973, 1977) claimed that spaces become places if people's psychological experiences involve meanings, actions and feelings.

In contemporary memorial landscapes, which embrace contextualistic design approaches, the integration between place and participants stimulates a continuous flow of information at many levels, from place to participants and vice versa. Hayes et al. (1988) categorised Pepper's contextualistic approaches into *quality* and *texture*, where quality is made up of *spread* and *fusion*. Spread is defined as 'the extended present of an act in context'. This refers to the existence of the past and future in the 'ongoing act'. The *quality* of contemporary memorial landscape can be empirically examined based on its ability to become the abstract extension of history into the future. In this case, history is timeless. Navigating the social, psychological and physical manifestations of a memorial place, and reading its contextual narrative symbols, stress the root metaphor of Pepper's contextualism as 'an ongoing act in context'. On the contrary, in classical monuments, the social, psychological and physical processes of events operate separately, and places are experienced as objects for viewing rather than interactive/transactive ones. In Pepper's terms, the physical and symbolic barriers which surround classical monumental design prevent the *fusion* of participant-environment from occurring; fusion is defined as 'the integration of the textural details of a given event' (Hayes et al., 1988: 100).

### 3.3.1.9. *Research units of analysis*

In transactional approaches, details of a given event are inseparable; however, for the sake of this research and in order to simplify the analysis of the data, the elements of memorial events will be described and analysed separately. Nevertheless, this will be carried out in relation to other components in the system. The research units of analysis embrace the transactional principles introduced by previously mentioned scholars (Hayes et al., 1988; Altman and Rogoff, 1987; Dewey and Bentley, 1949; Pepper, 1942), in addition to Kaplan's (1983) categorisation of sources and types of 'cognitive processes' that affect person-environment compatibility. Kaplan set out the types of sources for mental activities and their expressions, first in environmental perception and internal reflection, or what are called 'images', and secondly in behaviour, categorised as plans/actions. These units formulate the methods used for data collection, and can be summarised as follows:

#### I. Actors:

The cultural and social background of the actors.

#### II. Contexts:

The physical and historical values of memorial elements.

#### III. Processes

Social, psychological and mental processes.

### 3.3.2. *Theory of affordances*

#### 3.3.2.1. *Introduction*

*'Behavior, places, and temporal dynamics are mutually interlocked such that behavior gains meaning by virtue of its location in a particular spatial and temporal context, and the context gains meaning by virtue of the actors and actions that exist within it' (Altman and Rogoff, 1987).*

Affordance is defined as *'the perceived functional significance of an object, event or place for an individual'* (Heft, 2001: 123). Gibson further describes affordance as the functional characteristics of the physical opportunities and danger that users perceive in their environment (1979). In other words, environments can work as settings for a

relationship between users and contexts and the opportunities that these contexts afford users to undertake. According to Clark and Uzzel (2002: 95, quoted in Hussein, 2009: 50), in Gibson's ecological approach, the aim of affordances is to '*examine the relationship between the functional properties of the environment and how environments are used*'. Gibson (1979) stated: 'the affordance of the environment is what it offers the animal, what it provides or furnishes either for good or ill' (Gibson, 1979: 127). Moreover, affordance is related to environmental events, which stimulate users' behaviours (ibid: 102).

The noun '*affordance*' does not actually exist. It was made up by Gibson in order to describe the complementarity of people and the environment, which no existing term could do (ibid: 127). Affordances are considered to be the mediator between the functional properties of the environment and users' behaviour. Heft (2001: 287, quoted in Xing-Yuan, 2008: 39), stated: 'the concept of affordance most basically highlights the congruence between structural features of the environment and functional possibilities for the perceiver. Environmental features are experienced as having a functional meaning for the individual. The features afford some action or extend some potential functional consequence.'

### 3.3.2.2. *Affordances and the niches of the environment*

A '*niche*' is a concept used by ecologists, referring to that which creatures utilise or occupy in the environment. Gibson explained that this differs from '*habitat*', which is where a species of animal lives, and suggested: 'a niche is a set of affordances' (Gibson, 1979: 128). In the built environment field, a niche is defined as a place in which statuary can fit, whereas in ecology it is a locale of environmental features into which a creature can fit metaphorically.



Affordance is neither objective nor subjective property. It is related both to physicality and reality and to personal meanings and values. For instance, in memorial context, which is the subject of this thesis, both physical attributes and their symbolic expressions, as well as meaning, cultural and personal values, formulate the property of affordance. *'It is equally a fact of the environment and a fact of a behavior. It is both physical and psychical, yet neither'* (ibid: 129).

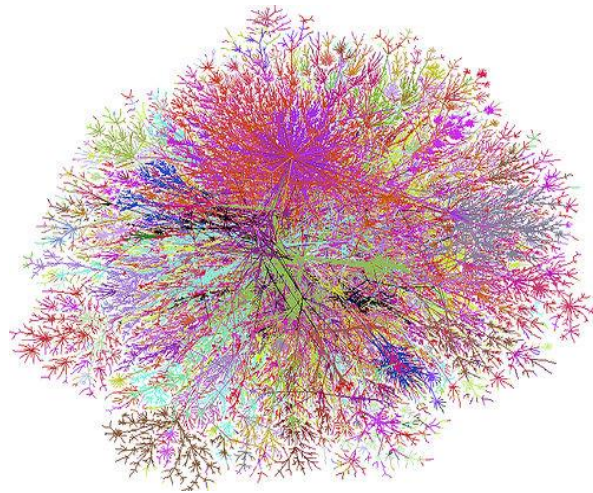


Figure 3.2: Internet Connectivity Ecosystem

### 3.3.2.3. Affordances and behaviour setting

A behaviour setting is an *'ecological unit'* which makes a connection between the physical setting and behaviours in a specific situation (Barker, 1976: 126, cited in Hussein's PhD thesis, 2009). Hence, it is a system composed of people, behaviour and physical attributes of the environment in such a way as to create a set of actions happening in a specific time and space (Wicker, 1984). Barker (1976) added that behaviour setting as an eco-behavioural unit consists of *'entities'* and *'events'*, i.e. people, place and behaviour, as well as other processes such as sound, shade, etc.

The constituents of each behaviour setting are arranged in such a way as to work as part of the whole (ibid). In the transactional approach of psychology, these components do not work independently from each other; instead, they function together and simultaneously in order to encourage a variety of behaviours and actions. Ecological psychology complements this view by focusing on the information transaction between the components of the transactional system: actors, processes and environments (see Section 2 of this chapter). This information transaction can be carried out in physical, mental and virtual forms. For instance, the Internet expands

globally over a vast distance, and its behavioural setting is fussy and continuously under change (see Figure 3.2).<sup>24</sup>

#### 3.3.2.4. *Types of affordances*

There are two types of affordances: positive and negative affordances (Gibson, 1979; Kytta, 2003). Gibson stated that *'some offerings of the environment are beneficial and some are injurious'*. He added: *'[T]hese positive and negative affordances are properties of things taken with reference to an observer but not properties of the experience of the observer. They are not subjective values; they are not feelings of pleasure or pain added to neutral perception'* (1979: 137).

However, philosophers and psychologists have long debated as to whether values are physical or phenomenal, in the world of matter or only in the world of mind. Gibson distinguished between values and affordances, and this is why the debate does not apply. In this study, the researcher has chosen to deal with 'values and meanings' in memorial context as environmental affordances, which are related both to internal and external representations, based on the theory of distributed cognition. In other words, the user's experience and his behaviours and actions are the extraction of social and cultural processes, interacting with the memorial physical expression of the subject's symbolism. It is the result of a blended and continuous transaction of information at and between various levels. Hence, affordances were recorded from the respondents of the questionnaires and behavioural observation records.

#### 3.3.2.5. *Affordance as 'distributed cognition'*

*'The emphasis on finding and describing "knowledge structures" that are somewhere "inside" the individual encourages us to overlook the fact that human cognition is always situated in a complex sociocultural world and cannot be unaffected by it'* (Hutchins, 1995: 13).

This study has taken a distributed cognitive view of affordances. Distributed cognition is a psychological theory developed in the mid-1980s by Edwin Hutchins,

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<sup>24</sup> Retrieved on 31st May 2011 from: <http://theglobalrealm.com/2010/07/19/the-global-digital-landscape/>.

using insights from sociology and cognitive science and other views from cultural and social psychology. It is defined as '*a scientific discipline that concerns with how cognitive activity is distributed across internal human minds, external cognitive artifacts, and groups of people, and how it is distributed across space and time*' (Zhang and Patel, 2006: 335). Therefore, according to this approach, people's behaviour is a result of interaction with external artifacts and other people's cognition. Activities in this view are guided, and to some extent determined, by the physical, cultural and social context in which they occur.

Distributed cognition has been used in many disciplines and in different ways. In this study, memorial concerns the distribution of information and knowledge between individuals and environmental memorial attributes, and between individual minds themselves as a collective experience. These units of analysis have been framed by the social aspects of distributed cognition, in which a dialogue between individual, artifacts and environments is established. This stresses the notion of transactionalism and its holistic quality; we cannot interpret users' behaviour apart from its social and cultural contexts (a network of individual minds) or physical and external contexts (a network between minds and artifacts). All components of this distributed system gain meanings from each other, and the cognitive properties of each radically differ from the cognitive properties of the whole system. This is similar to aspects of the transactional view of psychology; Zhang and Norman emphasised the point that external representations are 'more than only inputs and stimuli to the internal mind. External representations have many non-trivial properties. For many tasks, external representations are intrinsic components, without which the tasks either cease to exist or completely change in nature' (2006: 334).

Under the distributed cognition framework, affordances can be defined as representations of the external environment and internal minds of organisms,

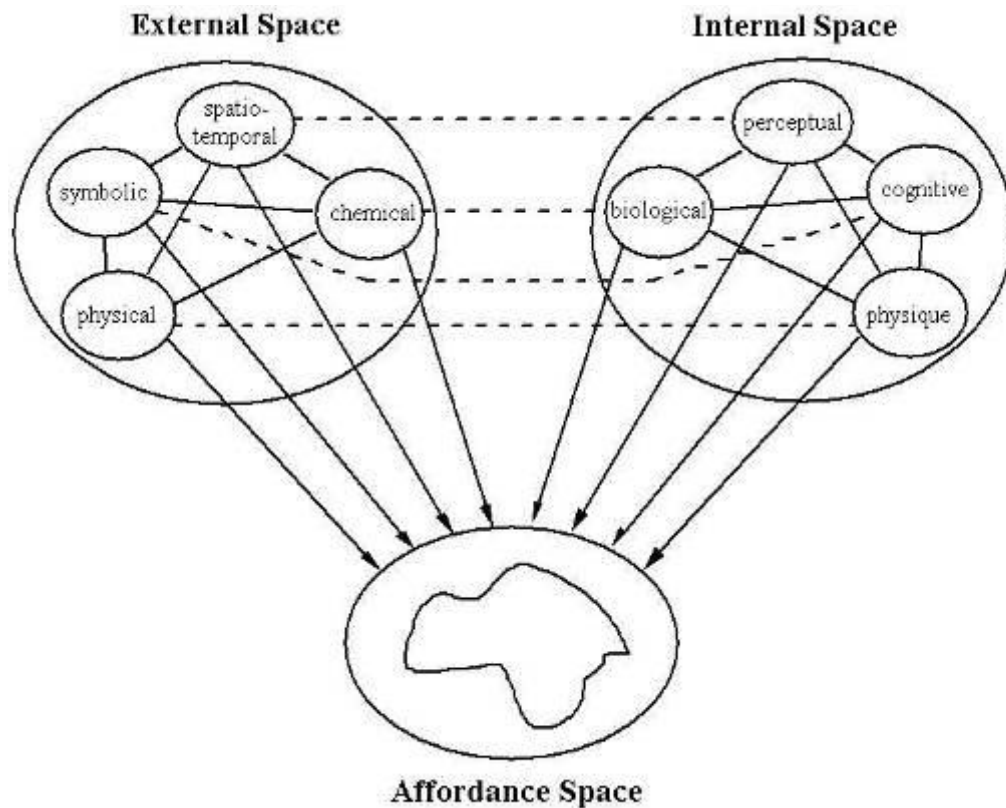


Figure 3.3: The distributed representations of affordances (Zhang & Norman 2006) extended across individuals and contexts. External representations could be seen at the levels of chemical processes, physical configurations, spatio-temporal forms and symbolic expressions, while internal representations are communicated through biological mechanisms, the physique of the organism, perceptual systems and cognitive processes (ibid).

### 3.3.3. Theory of personal projects analysis (PPA)

#### 3.3.3.1. Introduction

*'We assume that the content, appraisal, impact, and dynamics of personal projects play a pivotal role in human transaction and can serve as a constructive framework for personality research' (Little, 1987, 1988, 1998, as cited in Little et al., 1992).*

A personal project is regarded as 'a set of interrelated acts extending over time, which is intended to maintain or attain a state of affairs foreseen by the individual' (Little, 1983: 278). Buss and Cantor (1989) and Little (1987) described personal projects as 'extended intentional acts that can range from barely noticed routines like "warm up the car" to overarching life commitments such as "avenge my father's death" but that tend to fall into the range of middle-level units in personality psychology' (Little, 1993: 160). Little (1972), who pioneered the study of 'personal projects analysis', added that personal projects represent 'cognitive, affective, and behavioral aspects of human conduct'. Moreover, personal projects can also provide interactional units of analysis for personality research. They place individuals in their own social, temporal and spatial natural contexts, where interaction occurs over extended periods of time. The analysis of personal projects is described below.

#### 3.3.3.2. *Personal projects analysis (PPA) and transactionalism*

Little (2000) claimed that the study of 'personality' and 'social ecology' is framed by a set of assumptive propositions about the nature of individuals, the nature of environments and the transactional characteristics of individuals in those contexts. In PPA, the emphasis is on that which persons are doing in their lives, and which are considered 'transactional units of analysis', giving us an idea of both the persons and contexts in which these actions occur (ibid: 81). The search for suitable units of analysis in person-environment relationships has dominated the fields of personality theory and environmental psychology for some time (Allport, 1958; Wallace, 1967; Russell and Ward, 1982; Stokols, 1982). The nature of placing persons in contexts, and the interactional nature of personal projects, make them suitable as units of analysis for both the personality and the environment. According to Little (2000), personal projects serve as units of study for the 'transactional processes' of individuals acting in context. 'A personal project is neither exclusively a person unit, nor a contextual unit; it is a "person-in-context" unit of analysis' (Little, 1987; Wapner, 1981, cited in Little, 2000: 79). 'Personal projects are more clearly externalized and extended sets of actions which draw from and act upon the surrounding ecological context' (ibid).

Little (2000) introduced four fundamental theoretical assumptions that frame both his social ecological perspective and the methodology of personal projects analysis;

through these, the themes of the transactional nature of person-context study are explored. The four assumptions are constructivism, contextualism, conativity and consiliency. The design of the users' questionnaire was mainly based on these assumptions.

Little's social ecological perspective of *constructivistic* assumption was derived from Kelly's (1955) personal construct theory. This theory is defined as "'bi-polar templates" or conceptual "goggles" through which individuals view their world' (Little, 2000: 80). Kelly stressed the importance of 'personal constructs' as a stage for individuals to represent both their personalities and contexts (ibid). Hence, the unit of analysis for that assumption was personal salient constructs rather than the salient ones used in this research. However, Little (2000) indicated that both of these 'legitimate concerns' can be conjoined in a transactional methodology. In this current study, for the sake of practicality and the ease of collecting data on sites, respondents were asked multiple-choice questions, which in this case were based on the researcher's own considerations. As there was only one personal project studied (i.e. visiting the memorial site), open-ended questions were included in the users' questionnaire in order to attain richer information about personal expression and reflection. This constructivist theme was the basis for the first part of the users' questionnaire, which will be explained in detail in Chapter Five. This stage was related to the environmental supportiveness of both personal projects and a further three memorial communicational values, chosen by this researcher for their importance to memorial design (SPPCV).

The second assumption of personal social ecology is *contextualism*. Personal conduct is not explicable unless it is tied to the contexts within which it is embedded (ibid). These contexts are defined as the social and physical environments of persons. Moreover, this type of assessment of persons in context can give important information about 'social ecologies' and the individual characteristics being studied. In this memorial study, the second part of the users' questionnaire was concerned with the affordances that physical environment can offer to site users, or what is called 'environmental supportiveness based on environmental attribute' (SEA). Questions about the physical quality of the environment, in addition to other generic

and demographic questions, were formulated in an attempt to glean more insights about the transactional ecologies of the memorial site.

The third assumption of Little's personal projects analysis approach is *conativity*. This contrasts with the cognitive and behavioural approaches which dominated the field of psychology for a long time. 'Conative psychology' is defined as 'the examination and explanation of the content, structure, and dynamics of personal goal-directed activity' (Little, 1993: 157). In his methodological approach, in relation to conativity, Little described personal projects as 'explicitly conative: they are volitional undertakings'. As such, personal projects analysis is included in the units of analysis of 'personal action constructs' (PAC) and is defined as a methodology for operationalising these units of analysis (ibid: 162). This allows personal projects to be fixable as a measurement system, or metaphorically, as a motherboard in computers that should be 'modular'. This modular nature of PPA allows the researcher to use 'ad hoc' factors in addition to the PPA matrix. As mentioned before, three memorial communicational values (didacticism, catharsis and readability) were added to personal projects' seven dimensions to form a whole set of measurement units.

The last assumption of the PPA approach is *consiliency*. As persons' conduct is very complex, transdisciplinary units of assessment are required. The ratings of a set of personal projects dimensions relating to a specific research project afford us various levels of measurement both normatively and ideographically; that is, we can examine the relationships between many dimensions of a personal project and show any possible correlation across their appraisal ratings, while also comparing it with other individual ones.

#### 3.3.3.3. *Personal projects analysis research framework*

Personal projects analysis has been developed within the social ecological framework. The focus of such an ecological model is 'explaining and enhancing the adaptation and well-being of individuals in context' (Little, 1993: 164).

The first module in the PPA assessment process is a 'project elicitation list', or adopting what Little called a 'credulous approach to assessment' (ibid). This involves asking respondents to write or speak about their personal projects (see Table 3.5). In

this research, respondents were not asked to list their personal projects, as there was only one project to be assessed, i.e. visiting the memorial site.

The second module of PPA involves asking respondents to appraise each of their projects against various assessment dimensions. Some of these dimensions derive from the sequential development of the personal projects reviewed in the next section: visibility, initiation and control, for instance, are related to project planning stages. Other dimensions, such as enjoyment, stress and outcome, are developed from the hypothesised relationship with measures of life satisfaction and wellbeing. This is based on a five-factor model, consisting of five project themes: '*meaning, structure, community, efficacy, and stress*' (ibid: 164). These project themes comprise other dimensions as follows:

- *Meaning*: importance, enjoyment and value congruency
- *Structure*: initiation, control and time sufficiency
- *Community*: visibility and others' views
- *Efficacy*: progress and outcome
- *Stress*: stress, difficulty and challenge

The third module in this assessment process is the 'cross impact matrix'. In this task, respondents are again asked to list their most important projects on the left and along the top of the table. After writing down the projects horizontally and vertically, they are asked to determine the impact (positive (+), very positive (++), negative (-), very negative (--)) and neutral (0)) of each project on others. This module is also not applicable to this current study, as there was only one project to assess.

#### 3.3.3.4. *Personal projects sequential analysis*

It has been claimed that personal projects can be analysed based on their progression stages. There are four general stages and a total of 20 substages depicted in Little's research (see Figure 3.6) (Little, 1983). The first is 'inception'. It starts from the awareness of project possibility by individual consciousness, realising the desired outcomes or pre-consciousness such as dreams or reveries. In the memorial context, the need for grief or mourning or social communal action might initiate or facilitate



the memorialisation process. This might also occur accidentally, without any predetermination, during park visits or leisure activities. There are four substages for this stage: *awareness*, *identification*, *pre-evaluation* and *acceptance*.

Table 3.4: PPA Rating Matrix

Personal Projects Rating Matrix: What do you think about what you are doing?																	
	Projects	Importance	Difficulty	Visibility	Control	Responsibility	Time Adequacy	Outcome (Likelihood of Success)	Self Identity	Other's View	Value Congruency	Progress	Challenge	Absorption	Support	Competence	Autonomy
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	

The second stage of personal projects analysis is 'planning'. This involves soliciting any material or personal support that the development of personal projects may require. There should be some kind of motivation and reason to carry out projects, and their aim and objects should be ascertained. This stage consists of five substages: *proposal*, *funding*, *supplies and space support*, *recruitment* and *scheduling*.

The third stage is 'action'. It includes launching personal projects, which demands high energies and resources. Once this substage of *engagement* has begun, other action stages are required such as *control*, *continuity* and *motivation*. During these three actions, 'it is necessary to take corrective action against deviations from project goals, or place constraints upon injudicious use of resources' (ibid: 284). One important issue for the continuity of personal projects related to the memorialisation process is the size of the personal project team. Visiting memorial sites alone is likely to be more difficult than carrying out this task in a group. In his research, Little stated: 'To the extent that individuals engage in solitary projects, they are

more likely to be effective at providing continuity and interrelatedness to tasks than are those involved in multiperson projects' (1983: 284). As monuments are framed as part of the collective identity or national identity and provide a personal feeling of belonging to a community or nation (McCarthy, 2007: 6), memorial projects gain their effectiveness from social meanings and rituals.

The last stage of the personal projects sequence is 'termination'. This is misconceived as being an easy task. Closure of some personal projects can actually be very complex. This stage consists of six substages: *end-signalling, exit-barrier removal, conclusion, publication, compensation* and *shutdown*. In this stage of the memorialisation process, effective closure of the project/memorial visit is based on the extent to which individuals find memorial visits meaningful and rewarding. Hence, there can be some pain or loss in bringing this project to an end. In relation to the concept of Anti-Memorial in memorial design, it is worth mentioning Joel McKim's argument, based on Agamben's theory of aesthetics, that the end product of any art project should not be determined, and the 'unconcealment and preservation of a truth' should be naturally and unwillingly revealed (McKim, 2009). Similarly, the act of perceiving art or memorial design should be open-ended and continuous.

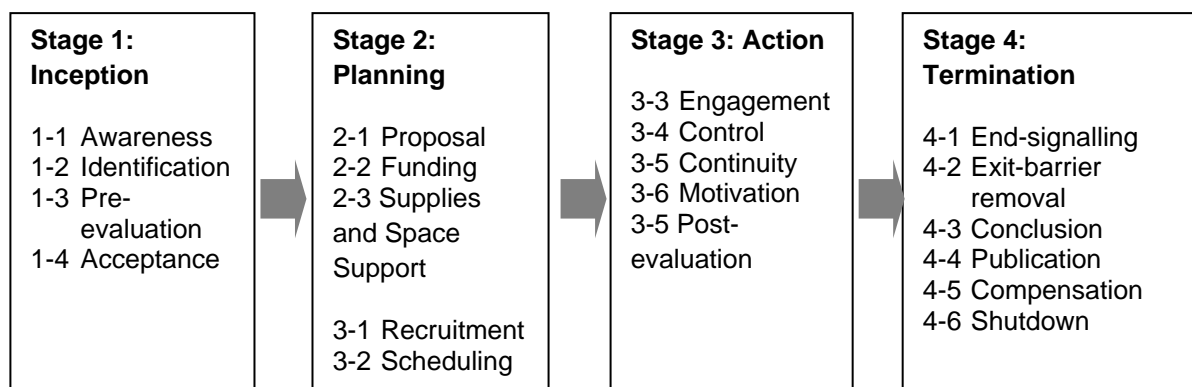


Figure 3.4: Initial sketch of stages in the development of personal projects (Little, 1983)

### 3.3.4. *IXIA public art evaluation research*

#### 3.3.4.1. *Introduction*

As this researcher found a similarity between public art projects and memorial projects in terms of aesthetic and social essences and the process of examining managerial and personal views in both contexts, this study adapted the evaluation toolkit developed by OPENspace for the IXIA public art study. IXIA is a 'public art Think Tank', an organisation funded by Arts Council England. The aim of IXIA is to provide a set of objective factors that affect the quality of artworks in the public realm by running research and enabling discussion and debate at decision-making and strategic levels. In order to accomplish this aim, OPENspace Research Centre at Edinburgh College of Art was commissioned to examine ways of evaluating public art projects and provide an evaluation framework and assessment toolkit for art impact and quality. The task was to provide 'a tool for assessment that will be of use to the key parties engaged in public art practice' (OPENspace, 2005: 3).

The objectives of the evaluation process indicated by IXIA are:

- Setting up a framework in which objectives are identified in relation to specific targets;
- Monitoring how objectives are achieved;
- Assuring funders that their investments will be effective;
- Reflecting upon the improvement of a project;
- Modifying policies and strategies throughout the lifetime of a project;
- Recording the outcome and impacts of a project;
- Providing feedback for people working on a project.

This toolkit comprises two evaluation tools: the 'Matrix' and 'personal project analysis'. The current research adapted the latter tool in order to:

- Know about the experience of memorial users and their own personal perception;
- Attain more insight into the nature of designing and constructing memorial projects, and whether the outcome and the usage of the sites satisfy their users;

- Identify a tool that could be used during the lifetime of a memorial project, from commissioning/holding competitions, through design conception and articulation, to public consultation and construction.


#### 3.3.4.2. *IXIA personal projects analysis*

As was explained in Section 3.3.3, personal projects analysis was developed by Brian Little in 1983 and has been used in different research contexts to examine some of the issues related to person-environment relationships. In the IXIA project, it was used to look at public art projects from the personal point of view of stakeholders, 'which places the artist and other key stakeholders at the center of the evaluation' (ibid: 54). While this tool allows exploration of the internal view of the process and context, the Matrix offers an external evaluation through key values measurement of a project's outcome assessment. Both tools allow for 'cross-referencing' of the assessed outcome of the project and personal projects analysis and triangulation between the external and internal views of all stakeholders.

In IXIA's personal projects analysis form, stakeholders were asked to respond to each of the statements, scoring on a five-point scale, in order to express their views or experience of the art project. Each of the statements was related to one dimension of personal projects analysis e.g. importance, enjoyment, absorption, self-identity, time adequacy etc. However, more dimensions could be added to this list, since the toolkit has proven its flexibility and adaptability to various project contexts (see Figure 3.5). Moreover, at the end of the personal projects analysis form, there were some open-ended questions to enable more flexible responses and personal outcomes. This allowed both quantitative and qualitative data to be collected and analysed (Figure 3.6).

Relevant to this toolkit is the notion of 'distributed cognition', based on the idea that human behaviour and attitude result from interactions between 'internal human minds' and 'external cognitive artifacts', a group of people and how they are 'distributed across space and time' (Zhang and Patel, 2006) (see Section 3.3.2.5). As was demonstrated across three case studies of art projects, 'Out of Suburbia', 'Look Ahead' and 'Beyond the Cut', all carried out by OPENspace, it is necessary to use

both the Matrix and personal projects analysis, since they show different sides of the project and its outcomes.



ixia\*  
PUBLIC ART THINK TANK

<b>ixia Evaluation Toolkit</b>	<b>Personal Project Analysis</b>
<b>Project Title</b>	
<b>Project Phase</b>	
<b>Date</b>	


**Using the Evaluation Toolkit**

The Toolkit comprises two parts, this Personal Project Analysis (PPA) and the Matrix, available as a separate document. The Toolkit is designed to be used within the context of a group discussion with the support of a facilitator. Ixia provides training for individuals to facilitate the use of the Toolkit. For further information contact Ixia at [info@ixia-info.com](mailto:info@ixia-info.com)

All stakeholders are to place scores against each of the dimensions described below. If you think a dimension is not applicable, then give it a score of 0. This is not the same as giving it a low score.

		5	4	3	2	1	0
1	Importance* - How important is the project to you at the present time? 5= very important 1= not at all important						
2	Enjoyment - How much do you enjoy working on it? 5= enjoy a great deal 1= don't enjoy at all						
3	Difficulty - How difficult do you find it to carry out the project? 5= find it very difficult 1= don't find it difficult at all						
4	Visibility - How aware are the relevant people who are close to you and your work that you are engaged in it? 5= project very visible 1= project not at all visible to those around/close to me						
5	Control - How much do you feel you are in control of the project? 5= in complete control 1= have no control over the project						
6	Initiation - How much do you feel responsible for having initiated the project? 5= fully responsible for initiating 1= no part in initiating the project						
7	Stress - How stressful is it for you to carry out the project? 5= very stressful 1= very relaxing to carry out						
8	Time adequacy - How much do you feel that the amount of time you spend working on it is adequate? 5= amount of time spent on it is perfectly adequate 1= for whatever reason, the amount of time you spend working on it is not at all adequate						
9	Outcome - What do you anticipate the outcome of the project to be? 5= extremely successful 1= a total failure						
10	Self-identity - How typical of you is this project? 5= very typical of me 1= not at all typical of me						
11	Others' view - How important is the project seen to be by relevant people who are close to you and your work? 5= seen as very important by others 1= seen as not important at all						
12	Value congruency - To what extent is it consistent with the values which guide your life? 5= totally consistent with your values 1= totally at odds with them						
13	Progress* - How successful have you been in the project so far? 5= very successful 1= no success at all						
14	Risk - To what extent does the project involve risk for you? 5= most risky, almost more than I can handle 1= not risky at all, almost boring						
15	Absorption - To what extent have you become engrossed or deeply involved in the project? 5= tend to be very absorbed in the activity 1= tend to be uninvolved when carrying out the project						
16	Competence - To what extent do you feel competent to carry out this project? 5= completely competent 1= do not feel competent						
17	Autonomy - How much do you feel you are acting autonomously in carrying out this project? 5= engaged entirely according to my own free will 1= completely acting according to someone else's wishes						
18	Legacy - How much of a lasting legacy do you think this project will create? 5= long-lasting, high profile legacy 1= no evident or lasting legacy						

Table 3.5: The personal projects analysis form, with list of dimensions (OPENspace, 2005)



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ixia Evaluation Toolkit

Personal Project Analysis

Support for your project - Which component helps or hinders your project?		5	4	3	2	1	0
<b>1</b>	Other people directly involved in carrying out the project 5=fully facilitates 1= thwarts my effort						
<b>2</b>	Social environment for the project - the community of interest 5=fully facilitates 1= thwarts my effort						
<b>3</b>	Physical milieu and environment 5=fully facilitates 1= thwarts my effort						

**\* What were the best things about the project? (list up to three)**

**\* What were the worst things about the project? (list up to three)**

**\* What surprised you about the project?**

**\* What did you learn?**

**\* What would you do differently another time?**

Select a heading that represents your role. Add further information if you wish.

Creators

Lead Artist

Collaborating Artist

Lead Architect

Collaborating Architect

Lead Designer

Collaborating Designer

Contractor

Hosts

Community

Private/Corporate Organisation

Commissioner/Funder

Local Authority - Arts

Local Authority - Non Arts

Other Public

Public Art Agency

Charitable Organisation

Private/Corporate

Individual

**THE CONTEXT**

**A. Others - Who else is directly involved with you in carrying out the project? - Identify the people and their roles.**

**B. Physical setting for project activity - Where do you usually work on the project?**

**C. Physical setting for completed project (if relevant) - Where will the final setting for the project be?**

**Use of information**  
General information about your project and the information that you have provided on the PPA will be stored on a secure computer database that ixia has created. This has been designed to collate information about the impact of public art commissions. Your PPA can only be viewed by the facilitator of your project, you and representatives of ixia and its approved associates. The information will be used by ixia to inform research that is made available to the public. Your name and contact details will not be included in either the database or the research. The database is registered with the Information Commissioner's Office, which supports the proper management and use of personal information in accordance with the Data Protection Act 1998.

I consent to ixia storing and using the information I have given on this form.

☐ yes    ☐ no    (tick box)

\*NOTE: questions marked with an asterisk are only possible to answer once the project is in progress or at completion.

ixia Evaluation Toolkit has been developed by OPENspace: the research centre for inclusive access to outdoor environments, in association with ICE, the Institute for Curatorship and Education at Edinburgh College of Art. The Personal Project Analysis is based on Brian Little's original Personal Project Analysis.

ixia Evaluation Toolkit © ixia pa ltd

Designed & Produced by www.aspectdesign.co.uk - ixa

Figure 3.5: The personal projects analysis form: open-ended questions (OPENspace, 2005)

### 3.4. Research aims

Following the above research argument, the criticisms of and support for the modern approach and principles of memorial design and its supposed incapability of producing a powerful and meaningful memorial and monument, this research aims to clarify some of the issues around the purpose of creating such places from the users', and researcher's points of view, through the research by design stage. The researcher believes that investigating the design process and the current usage of some contemporary memorial case studies, through theoretical enquiry and empirical study in addition to practice-based research, will contribute to the whole body of knowledge of memory and memorial studies, as well as the debate surrounding their design forms and necessity. The design project is a complementary part of the research and its theoretical discourse, with the ambition of keeping the contemporary memorial design process open for further future reflections and exploration. Specifically, this research aims to:<sup>25</sup>

- 1- Investigate users' perception of and interaction with memorial design elements (in behavioural observation study these elements are referred to as behavioural settings) and record their activities and responses;
- 2- Attain more insights into the current uses of contemporary memorial sites;
- 3- Investigate how the meanings of abstract design elements in contemporary memorial are delivered, understood and appreciated by the users;
- 4- Explore the variations and implications of the notions and theories of Anti-Memorial through a research by design process and reflective practice.

#### 3.4.1. Introduction

This research, in its theoretical, empirical and research by design sections, attempts to answer some primary and secondary questions, which are considered central to the argument surrounding contemporary memorial landscape design. These questions are derived from the gap in the literature of memorial landscape/architecture, public art, politics and memory, which wholly excludes

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<sup>25</sup> These research aims are strongly related to the research questions and the methods for data collection through which they are achieved.

memorial users from the contemporary memorial design process. More details of the research methods used to answer these questions are explained in Chapter Four.

### 3.4.2. *Research questions*

These research questions will be answered based on cross-referencing, triangulation and comparing the results from all research methods: users' questionnaire, behavioural observation and research by design. They deal with memorial design perception and visitors' reflections at the memorial site. Behavioural observation has resulted in rich information on the type of activities in which visitors engage at each memorial behavioural setting. Meanwhile, the users' questionnaire provides information on how memorial abstract design is perceived.

- I. *What are the memorial design aspects that contribute to the success of contemporary memorial landscapes from the views of memorial users and their design preferences? (Based on users' questionnaire of three memorial typologies)*
- II. *How do memorial users respond to memorial behavioural settings and how is that reflected in their behaviours? What are the most heavily used behavioural settings preferred by the visitors? (Based on behavioural observation).*
- III. *How could a forced displacement of a nation be best commemorated and symbolised through landscape design, based on the notions of contemporary memorial and transactionalism? And how were memorial aspects perceived by the public (case study of Palestine)?*

The practice-based part of this research will act as a testing tool for the theories of contemporary memorial landscape design approaches, such as Anti-Memorial and Counter-Monument, which emerged in the second half of the twentieth century. The transactional relationship between Palestinian refugee users, historical values and displacement memories that manifested in the Al-Nakba memorial, as well as museum design spatial and physical forms, has been tested and formulated. The research by design brief and questions will be presented in detail in Chapter Six.



### 3.5. Conclusion

This chapter has presented the research argument, three questions and four aims, and the contribution of the current study to memorial knowledge, all of which have established the driving forces of this study. Various theories in environmental psychology, on which the structure of the thesis and the methods of data collection are based, have also been explored.

The theory of transactionalism, which is defined by Altman and Rogoff (1987) as 'the study of the changing relationship among psychological and environmental aspects of holistic unities', leads to the conclusion that it is necessary to integrate both persons' internal representation and environmental physical attributes into the users' questionnaire. The actions of a person over time, in a certain context, is the main concern of this theory. Change over time and actions are more important than the static existence of the separate units of physical environment. As mentioned above, Altman and Rogoff (1987) drew an analogy between transaction perspectives in psychology and quantum and relativity theories in physics, as they both focus on the 'field' or changing configuration of energy. In transactionalism, behavioural settings (or memorial design elements) are defined as patterns of actions in relations to places and contexts; these actions are organised in a temporal and systematic manner.

The second theory of research framework is affordances; these were defined by Heft (2001: 123) as '*the perceived functional significance of an object, event or place for an individual*'. Gibson further described affordances as the functional characteristics of the physical opportunities and danger that users perceived in their environment (1979). The theory of affordances is derived from the contextualistic view of research, and formed the basis for this study's environmental behavioural observation and the second part of the users' questionnaire.

This chapter has also discussed 'personal projects analysis' in detail; it was used in the IXIA study, carried out by the OPENspace Research Centre at Edinburgh College of Art in 2005 to evaluate public art projects. Personal projects are regarded as 'a set of interrelated acts extending over time, which is intended to maintain or attain a state of affairs foreseen by the individual' (Little, 1983). They place individuals in their own social, temporal and spatial natural contexts, where interaction occurs over extended

periods of time. The dimensions of personal projects analysis (importance, attachment, belonging, enjoyment, time adequacy, freedom and success), in addition to three memorial communicational values (didacticism, catharsis and readability) were chosen as the basis for the first part of the users' questionnaire. More details of the methods of data collection and the design of the users' questionnaire and behavioural observation will be discussed in the next chapter.



# CHAPTER FOUR:

## Research Methodology & Methods of Data Collection

### 4.1. Introduction

After surveying the literature review of contemporary memorial landscape design that emerged after the Second World War, the researcher was unable to find any comprehensive empirical research into users' perception and interaction with modern and contemporary memorial designs. This chapter will discuss the methodology chosen for this study, as well as the data collection methods implemented by the researcher for three case studies in London, UK, in an attempt to gain more insight into the user-memorial transactional relationship and influential aspects that should be taken into consideration when designing memorial sites.

### 4.2. Research methodology

#### 4.2.1. *Defining research methodology*

As described in Chapter Three, this research aims to explore contemporary memorial landscape design approaches, people's perception of the meanings of memorial and their interaction with its elements, and record their activities and responses. As the literature lacks any in-depth empirical study of contemporary memorial landscape, this research will act as a trigger for further research, exploration and investigation, enrich the memorial body of knowledge and provide a new tool for evaluating memorial design from users' point of view.

Memorial design has proved to be notoriously difficult to evaluate due to its complexity and its subjective perception, and it is a challenging task to set up design guidelines for a successful memorial. Hence, this research does not provide design

receipts; rather, it stimulates discussions of future empirical memorial and memory research.

As a complementary part to the scientific inquiry that includes qualitative and quantitative methodologies, research by design was conducted exploring events relating to Palestinian displacement in 1948 and proposing a memorial park and museum dedicated to all Palestinian refugees expelled from their homeland (see Chapter Six).

Research goals have been achieved by adopting two approaches:

*i.* As presented in the literature review in Chapters Two and Three, this study began with a *deductive* approach, introducing the context of memorial design in the twentieth century and its movements and approaches, with a focus on the principles of the Counter-Monument and Anti-Memorial design movements. This also included a literature review of the research theoretical framework in relation to theories of transaction, affordances and personal projects analysis, on which the methods of data collection are based.

In addition to the research theoretical review and background, further historical study of the 1948 Palestinian displacement and Nakba oral history project provided a framework and driving force for the design process and actions.

*ii.* Second was the *inductive* or *empirical* approach. This involved acquiring knowledge, collecting qualitative and quantitative information and gaining more insight into people's attitudes and perception of memorial landscape design by means of the visitors' questionnaire and behavioural observation, in addition to the Palestinian Nakba memorial research by design project and its exhibition visitors' feedback. This mixed methods multi-level investigation enabled the researcher to tackle the research problems from different points of view and answer them using various approaches.

#### 4.2.2. *Mixed methods research*

In the mixed methods approach, pragmatic grounds are considered the basis on which the researcher bases knowledge claims (e.g. consequence-oriented, problem-centred and pluralistic). It embraces strategies of inquiry such as collecting qualitative

and quantitative data and research by design, either simultaneously or sequentially in order to best understand the research problem through comparison and triangulation. As such, the data gathered using this approach comes in both numeric and text form so that the final database represents both quantitative and qualitative information (Creswell, 2003).

As the memorial research problem is very complex and has not been widely researched on an empirical level, mixed methods research is the best approach for extracting important design aspects and answering the research questions. Therefore, the study, through the visitors' questionnaire, began with a numerical generic survey in order to generalise results and then focused on qualitative open-ended questions for more detailed site-specific results. This open-ended data helped with exploring the research problem and identifying unknown variables.

Mixed methods research employs a combination of two methodological approaches:

- Quantitative approach, in which postpositive claims are used for developing knowledge, and strategies of inquiry include experiments and surveys. Collection of data is based on predetermined instruments that yield statistical data. The researcher collected statistical data from the visitors' questionnaire and environmental observation.
- Qualitative approach, in which knowledge claims are based on the constructivist perspective (i.e. environmental observation), participatory perspectives (i.e. open-ended questionnaires) or both. It uses strategies of inquiry such as narratives, phenomenology, ethnographies, grounded theory studies or case studies. In this study, the researcher collected open-ended emerging data from the visitors' questionnaire and environmental observation, with the intention of developing themes from the data about each case study.

For constructivist claims, the researcher sought to establish the meanings of memorial phenomena from the views of participants. This involved identifying groups of users (called actors by the researcher) by observing their behaviour on-site, and studying the way they developed patterns of behaviour over time in certain behavioural

settings. On the other hand, for participatory knowledge claims, the researcher intended to develop themes or patterns through identifying the multiple meanings of individual or collective experiences, extracted from open-ended questions. Generally, the main reason for choosing a qualitative study paradigm is unknown variables in the research outset, which will require many explorations (Creswell, 2003, cited in Hussein, 2009).

### **4.3. Methods of data collection**

#### ***4.3.1. Case study***

For this research, a mixed methods study has been conducted in the context of case study methodology. In theory, case study methodology represents one type of qualitative research, with intensive details and a description of 'a single unit or system bound by space and time' (Hancock and Algozzine, 2006: 11). Hancock and Algozzine state that '[t]hrough case studies, researchers hope to gain in-depth understanding of situations and meaning for those involved' (ibid). In this research, 'situations' refer to physical memorial sites and 'those involved' are designers, managers and site visitors; these are considered both sources of information and units of analysis. This view is compatible with the holistic approach of theory of transaction, where environment and people are equally researched and studied (see Chapter Three for more details).

Francis (2001: 16) defines case study in relation to landscape architecture as 'a well-documented and systematic examination of the process, decision-making and outcomes of a project, which is undertaken for the purpose of informing future practice, policy, theory and/or education'. Where a case study approach is used, the study of human experience in a particular situation includes detailed description of those under study. Soy (1997) stated that this method also involves the study of a limited number of subjects, with an extensive engagement, in order to allow the researcher to understand patterns and relationships.

#### ***4.3.2. Visitors' questionnaire (for both research case studies and practice-based research exhibition)***

The purpose of a questionnaire is to attain numeric or quantitative descriptions of the trends, attitudes and opinions of a population by studying a sample of their number (Creswell, 2003). The results of this sample allow for generalisation and claims about the population (Babbies, 1999). In addition to the five-point scale questions that provided the numeric data, the questionnaire in this study included open-ended questions in order to investigate memorial values from the perspective of study participants. People's views, personal feelings, visiting experience and reactions were recorded using two methods. It could be described as seeing through the eyes of people, as Bryman (1995) wrote. Qualitative research, based on an open-ended questionnaire, is a typical tool in the methodology of social science (Strauss, 1987).

#### 4.3.3. *Observation and behavioural mapping*

This method was used by the researcher to investigate people's interaction with memorial sites, users' patterns and the types of affordances allowed by each design element or behavioural setting. The numeric and qualitative real-time data collected was complementary to the data from the visitors' questionnaires that were mostly completed off-site, at homes or offices.

Behavioural observation is defined by John Zeisel (2006: 191) as 'systematically watching people use their environments: individuals, pairs of people, small groups, and large groups. What do they do? How do activities relate to one another spatially? And how spatial relations affect participants?' In other words, it generates data about physical activities and the relationships needed to sustain them, regularities of uses, new uses and the negative and positive affordances provided by the environment. Cosco et al. stated that 'Behaviour mapping is an unobtrusive, direct observational method for recording the location of subjects and measuring their activity levels simultaneously' (2010: 514).

The importance of conducting observation on-site and revealing activity patterns was noted by Laurie (1986) and Natsu and Padmavathi who emphasised that 'landscape architects who understand these patterns and try to achieve the "Synomorphy"<sup>26</sup>

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<sup>26</sup> 'Synomorphy' was defined thus: 'If the setting components are in harmony with the behavior and its rules or purposes, there is a fit between environment and behavior, between



between the milieu and the behaviour... [create] a successful design' (2006, quoted in Hussein 2009: 73).

With regard to the relationship between behaviour and behavioural settings, Bechtel et al. (1987: 23) stated that 'the purpose of behavioural mapping is to locate behaviour on the map itself, to identify kinds and frequencies of behaviour and to demonstrate their association with a particular design feature. By associating the behaviour with a certain environment, it is then possible to both ask questions and draw conclusions about the behaviour and its relationship to a design feature.' Based on the holistic transactional approach, behavioural observation is important to understanding not only people's perception and behaviour and their meaning at memorial settings, but also their internal representation or cultural, social and religious background shown by the visitors' questionnaire.

#### **4.4. Piloting the study: Design analysis and online visitors' questionnaire for the Princess Diana Memorial Fountain (PDMF)**

##### *4.4.1. Introduction and aims*

The collection of data from the memorial site was originally planned to be facilitated through an online survey by this researcher. The Princess Diana Memorial Fountain (PDMF) was chosen to test this method, due to its popularity compared to other case studies around the UK and its likelihood of being visited by a majority of the public.

The first stage of this pilot study was to analyse the spatial properties and usage of the memorial, which are presented in detail in Section 4.6.3.1. of this chapter. This was in order to understand the designer's intention and the way the memorial site has been used in reality. Secondly, an online visitors' questionnaire was conducted using Esurveypro.com, which was publicised and distributed to participants through email and Facebook.

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form and purpose and the behavior setting' (Moore 1979: 53).

The online questionnaire version consisted of three parts (see Appendix C for the full version):

#### **Part One: Personal information**

Questions about name, gender, age, nationality, frequency of the visit, company (individual, couple, family or group) and familiarity with the design concept prior to the visit.

#### **Part Two: Visiting experience and supportiveness of personal projects and memorial communication values (SPPCV)**

Questions related to personal projects analysis dimensions and other memorial design values: importance, sense of belonging, enjoyment, attachment, most enjoyable memorial elements, time spent at memorial, time adequacy, readability, didacticism, catharsis, freedom and outcome.

#### **Part Three: Supportiveness of environmental attributes (SEA)**

This part gives participants the following instruction: 'Please select the activities the memorial has encouraged you to engage with from the list below, and add more if you have other suggestions. Please score your selected activities and other suggested ones in terms of how important they are for you personally and how successful carrying out these activities has been at the memorial, on a five-point scale (where "1" is not important/not successful and "5" is very important/very successful).'

#### **4.4.2. Results of the pilot study**

##### **4.4.2.1. Results of quantitative data**

The website used for this online survey was Esurveypro.com, and the number of entries recorded was 17 (n=17), in addition to four questionnaires received through email. This makes the total number of valid questionnaires 21 (n=21). The analysis run on the data collected from the questionnaire is purely descriptive, as its aim was merely to test structure and readability and (in the qualitative section) provide participant comments in order to develop the final version.

#### **Part One**

*Gender*

The number of male respondents was fewer than the number of female respondents. Male respondents represented 42.8% of the sample with a total number of nine, while females made up 57.2% of the sample with a total number of 12. At this stage, the researcher was unsure whether this showed the actual representations of male and female visitors in reality.

*Nationality*

British respondents constituted 28.5% of the sample with a total number of six (n=6), while other nationalities made up 71.5% with a total number of 15 (n=15).

*Age*

The data shows that 90% of the respondents were between 26 and 45 years old (n=19), while there was only one participant each from the 15-26 (n=1) and 46-65 (n=1) age groups.

*Company*

The majority of respondents visiting this memorial came as part of either a couple or group; they accounted for 35.3% and 29.4% of the memorial sample respectively. Respondents who visited the memorial with family made up 23.5%, and individuals 11.8%.

*Familiarity*

To the question about whether the visitor had prior knowledge of the site and its design, 52.3% of respondents answered yes, while 47.4% answered no.

**Part Two**

The variables of *catharsis* and *enjoyment* were the highest scoring variables with mean values of 3.9 and 3.6 respectively. The variable of *success* received a score mean of 3.4 and *freedom* received 3.2. Dimensions relating to *importance*, *belonging*, *attachment*, *readability* and *didacticism* scored mean values of 2.5, 1.8, 1.9, 2.4 and 2.9 respectively. The score mean value of the *time adequacy* variable score was 3.6, which is related to the 'length of the visit' second question in the questionnaire. In the main data analysis

in Chapter Five, the *success* is considered the dependent variable for measuring the outcome of the overall visit experience.

In response to a question about the visitor's favourite design element, 27% of participants stated that they enjoyed bubbling/cascading water, while 22.9% liked the seating stone edges along the fountain. The calm moving water, grass areas, reflecting pool and footpaths received 14.6%, 12.5%, 10.4% and 8.3% of the score respectively. The descriptive plaque received only 2%.

### Part Three

This section engages with the question of how much memorial design encourages participants to engage with specific activities on site. These activities are related to the affordances offered by the site. The affordance of 'sitting on the grass' was the highest scoring of these activities.

The result of the score mean values of all affordances are listed below in Table 4.1:

Table 4.1: The score mean values of affordances or activities with which the memorial encourages participants to engage

Affordances	Score means	Affordances	Score mean
Sitting on the grass	2.8	Strolling	3.9
Playing with water	3.4	Thinking	3
Reading a text	2	Touching memorial features	3
Sitting on memorial features	3.6	Observing	3.5
Expressing one's self	2.3	Contemplating	2.6
Writing	1.7	Remembering	2.7
Placing tributes	1.6		

#### 4.4.2.2. The results of qualitative data from the online questionnaire

The qualitative data in the questionnaire arises from the ‘why’ questions, where thoughts and reflections from participants are expressed. Table 4.2 shows the responsive percentage of each SPPCV question (see Appendix C for full response details).

Table 4.2: Participants’ responsive percentage based on SPPCV ‘why’ questions

SPPCV dimensions	Importance	Belonging	Attachment	Enjoyment	Readability	Didacticism	Catharsis	Freedom	Success
Frequency of qualitative responses	15	14	6	14	15	10	12	7	11
	14%	13%	5%	13%	14%	9%	11%	6%	10%

#### 4.4.3. Conclusion

The aims of piloting the study were to test the visitors’ questionnaire and its structure and clarity from the point of view of participants, and also to explore the sufficiency of conducting an online survey in a memorial landscape design context. The results of the pilot study helped to modify the following aspects of the questionnaire method:

- A few participants suggested moving the question about participants’ most enjoyable design elements into a different section as it was misread as part of the question about enjoyment, and was likely to be skipped by participants;
- There was a suggestion to change the word ‘enjoyed’ to ‘liked’ as enjoyment was perceived as inappropriate in a memorial context;
- Online surveying in relation to memorial landscape design proved to be insufficient as some participants claimed that they forgot how they had felt when visiting the memorial in the past. On-site survey distribution would help to attain fresher feedback;

- In the SEA section on affordances, the affordance of *walking around* the memorial was understood as being the same as *strolling*. As such, the former needed to be eliminated from the list;
- There was a need for a different method of categorising participants' qualitative answers, as SPPCV dimensions were difficult to analyse;
- Online surveying was not the best way of collecting data in the context of memorial landscape, as more interaction was needed with the physicality of the real memorial site; distributing questionnaires on-site would be more efficient and responsive than online surveying.

## 4.5. Data collection

### 4.5.1. Design and distribution of visitors' questionnaire

The original questionnaire was modified based on the results of the pilot study, participants' comments and the researcher's own further reading and observation. The final questionnaire was designed to cover all aspects of person-environment relationship and perception of environmental attributes in contemporary memorial context. The questionnaires were distributed at memorial sites by the researcher, who started by introducing himself and his institution to each participant with a brief description of the research and why it was being conducted.

The memorial visitors' questionnaire consisted of five sections:

#### I) General information:

This section included questions about the visitor's memorial numeric facts such as number of times they had visited the memorial, amount of information they had about a given memorial prior to their visit and those with whom they made their visit.

#### II) Supportiveness of personal projects analysis and memorial communication values (SPPCV):

Users were asked to score dimensions or aspects relating to their evaluation of the visit on a five-point scale and give reasons to support their answers. The personal project in this research context refers to the act of visiting the memorial and commemorating its subject/s. This was explained clearly to each participant before carrying out the questionnaire. These dimensions are based on the theory of personal

projects analysis by Brian Little, the IXIA project and the literature review of the values of memorial landscape design. SPPCV was categorised into two sections:

### **Personal projects**

#### *Importance*

How important is this memorial to you? Please give two reasons.

#### *Belonging/self-identity*

How much do you feel you belong to this memorial place? Please give two reasons.

#### *Attachment/absorption*

How much do you feel emotionally attached to this memorial? Please give two reasons.

#### *Enjoyment*

How much do you enjoy this memorial? Please give two reasons.

#### *Stress*

How stressful is it for you to carry out your memorial visit? Please give two reasons.

#### *Time adequacy*

How much do you feel that the amount of time you spend at the memorial is adequate? Please give two reasons.

### **Memorial communication values**

#### *Readability*

How much do you understand the meanings of this memorial? Please give two reasons.

#### *Didacticism*

How much have you learned from the memorial? Please mention two aspects you have learned from the memorial.

#### *Catharsis*

How much does the memorial comfort you? Please give two reasons.

#### *Success/outcome*

What do you anticipate the outcome of your memorial visit to be? Please give two reasons.

### III) Supportiveness of environmental attributes (SEA):

In this section, each participant was asked to select the activities in which the memorial had encouraged him/her to engage (or the affordances the memorial offers for its visitors) from a list, and score these selected activities on a five-point scale in terms of importance and success (see Table 4.3).

Table 4.3: Supportiveness of environmental attributes (SEA) variables

Activities (Projects)		Importance	Success
	Memorial encourages you to sit on the grass	1 2 3 4 5	1 2 3 4 5
	Memorial encourages you to play in the water	1 2 3 4 5	1 2 3 4 5
	Memorial encourages you to read a text	1 2 3 4 5	1 2 3 4 5
	Memorial encourages you to sit on its features	1 2 3 4 5	1 2 3 4 5
	Memorial encourages you to walk around/through	1 2 3 4 5	1 2 3 4 5
	Memorial encourages you to think	1 2 3 4 5	1 2 3 4 5
	Memorial encourages you to touch its features	1 2 3 4 5	1 2 3 4 5
	Memorial encourages you to stroll	1 2 3 4 5	1 2 3 4 5
	Memorial encourages you to observe	1 2 3 4 5	1 2 3 4 5
	Memorial encourages you to contemplate	1 2 3 4 5	1 2 3 4 5
	Memorial encourages you to write	1 2 3 4 5	1 2 3 4 5
	Memorial encourages you to remember	1 2 3 4 5	1 2 3 4 5
	Memorial encourages you to place tributes (flowers, letters.. etc.)	1 2 3 4 5	1 2 3 4 5
	Others:		

### IV) Memorial design preferences:

For each case study, visitors were asked about their memorial design element preference, i.e. which physical elements or settings they liked the most.

### V) Personal information



This section contained general questions about gender, profession, nationality and belief.

Please see Tables 4.4a, 4.4b and 4.4c for the PDMF users' questionnaire, and Appendix C for the details of the users' questionnaires for the other two case studies.

Table 4.4a: PDMF users' questionnaire cover

This research is being run at Edinburgh College of Art to gain a Ph.D degree in Landscape Architecture. All information received from this survey will be confidential and used only for research purposes. For further information about this project, please contact the researcher on:

**O. M.**

Edinburgh College of Art

74 Lauriston Place

Edinburgh

EH3 9DF

E-mail: omar\_larch@yahoo.co.uk

Mobile: +44(0)7725818343

**eca**

edinburgh college of art



**Diana Memorial Fountain**

**Visitor's Survey**

Ph.D Research at Edinburgh College of Art  
School of Landscape Architecture

Table 4.4b: PDMF users' questionnaire Part One

Please score the following questions on five points scale, and give reasons for your answer:		Not at all		Neutral		Very much
6•	How important is this memorial to you?	1	2	3	4	5
	Why? .....					
7•	How much do you feel you belong to this memorial place?	1	2	3	4	5
	Why? .....					
8•	How much do you feel emotionally attached to this ? memorial?	1	2	3	4	5
	Why? .....					
9•	How much do you enjoy this memorial?	1	2	3	4	5
	Why? .....					

10•	How much do you feel that the amount of time you spend being at the memorial is adequate?	1	2	3	4	5
	Why? .....					
11•	How much do you understand the meanings/ symbols of this memorial?	1	2	3	4	5
	Why? .....					
12•	How much does the memorial provide comfort to you?	1	2	3	4	5
	Why? .....					
13•	How much have you learnt from the memorial?	1	2	3	4	5
	Please mention aspects you have learned from the memorial. ..... .....					
14•	How much does the memorial provide you with freedom to do whatever you like?	1	2	3	4	5
	Why? .....					
15•	How much successful is your overall memorial visit?	1	2	3	4	5
	Why? .....					

Table 4.4c: PDMF users' questionnaire Part Two and Three

**29•** Which part/s of the memorial have you enjoyed most?

☐ The grass area                      ☐ The footpaths  
☐ The bubbling/ cascading water   ☐ The calm moving water  
☐ The reflecting pool                      ☐ The seating edges along the fountain  
☐ The description plaque  
☐ Other (Please specify):.....

**Part Three:**

Now we want to know a little about you if you would not mind:

**30•** Gender: ☐ Male   ☐ female

**31•** Age: ☐ 15-25   ☐ 26-45   ☐ 46-65   ☐ 66+

**32•** Belief (Optional): ☐ Christian   ☐ Muslim   ☐ Jew  
☐ Other (Please specify):..... ☐ None

**33•** Nationality: ☐ British   ☐ Other (Please specify):.....

**34•** Profession: ☐ Architect/Landscape architect/Urbanist   ☐ Artist/Designer  
☐ Politician   ☐ Economist  
☐ Medic/Health specialist   ☐ Historian  
☐ Other (Please specify):..... ☐ None

• If you are interested in receiving more information about this research in the future, please write your email address:.....

**Part Two:**

Please score the activities listed below and your own suggested ones, in terms of how important they are for you personally, and how much successful carrying out these activities has been at the memorial. On the five-point scale, '1' means not important/not successful, and '5' means very important/very successful.

Activities memorial encourages you to engage with		Importance					Success				
		Not at all		Neutral		Very much	Not at all		Neutral		Very much
	Memorial encourages me to:										
16•	...Sit on the Grass	1	2	3	4	5	1	2	3	4	5
17•	...Play in the water	1	2	3	4	5	1	2	3	4	5
18•	...Read a text	1	2	3	4	5	1	2	3	4	5
19•	...Sit on its Features	1	2	3	4	5	1	2	3	4	5
20•	...Stroll	1	2	3	4	5	1	2	3	4	5
21•	...Think	1	2	3	4	5	1	2	3	4	5
22•	...Touch its features	1	2	3	4	5	1	2	3	4	5
23•	...Observe	1	2	3	4	5	1	2	3	4	5
24•	...Contemplate	1	2	3	4	5	1	2	3	4	5
25•	...Express myself	1	2	3	4	5	1	2	3	4	5
26•	...Write	1	2	3	4	5	1	2	3	4	5
27•	...Remember	1	2	3	4	5	1	2	3	4	5
28•	...Place Tributes (flowers, letters, etc.)	1	2	3	4	5	1	2	3	4	5
	Others:										
		1	2	3	4	5	1	2	3	4	5
		1	2	3	4	5	1	2	3	4	5

#### 4.5.2. *Preparation of observation and behavioural mapping*

Mapping behaviour in an outdoor environment is based on two notions identified by Cosco et al. (2010: 514): behaviour setting and affordance. Behaviour settings are defined as 'ecological units where the physical environment and the behaviour are in-dissolubly connected' (ibid). The affordances approach helped the researcher to investigate how the properties of memorial physical environment supports visitors' actions on site.

Based on the notions of Cosco et al. mentioned above, and also utilising Hazreena Hussein's (2009) behaviour mapping method, the preparation of behaviour mapping for this study included:

- A3 accurate scale plan of the memorial site: this illustrated the spatial configuration of the memorial project and the distinctive zones/settings of the design layout (see Section 4.6.2 for more details). All three case study drawings were obtained from the designers' initial project reports. The PDMF and JFKM site boundaries were originally determined by the clients; in the case of 7JM, meanwhile, the researcher chose to blur the boundary between the site and the surrounding landscape, and this meant including the adjacent park as part of the site (see Figure 4.1<sup>27</sup>).
- A3 size symbols of activities table: this included type of activities and affordances and visitor type (individual, couple or group), placed against memorial behaviour settings. The sheet also included identification of setting: weather condition, name of the site and date and time. See Table 4.5 for the PDMF activity symbols table, and Appendix C for the details of those of the other two case studies.

The researcher began behaviour mapping as follows:

- Both A3 size sheets (the memorial scale plan and the activity symbols table) were clipped to a clipboard with a multi-coloured pen ready at hand. The researcher placed himself in a suitable location for observation; at PDMF it was the central area, while at 7JM it was adjacent to the southern seating area. As the visiting track of JFKM is linear and long, and the number of visitors is low, the researcher

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<sup>27</sup> For larger maps see Appendix B.

chose to follow each visitor from the main gate in order to record his/her behaviour while walking along the site.

- The researcher began behaviour mapping of the 7JM and JFKM sites by recording visitors' movement from the memorial entrance until he/she left the site on a map that covered 15 minutes of observation. At PDMF, because the site is usually overcrowded and it is difficult to follow the behaviour of each individual, behaviours were mapped for all visitors simultaneously. This mapping included coding visitors' gender and group types (individual, couple, group), type of activities and affordances with which they engaged and their locations on the plan (see figure 4.1).



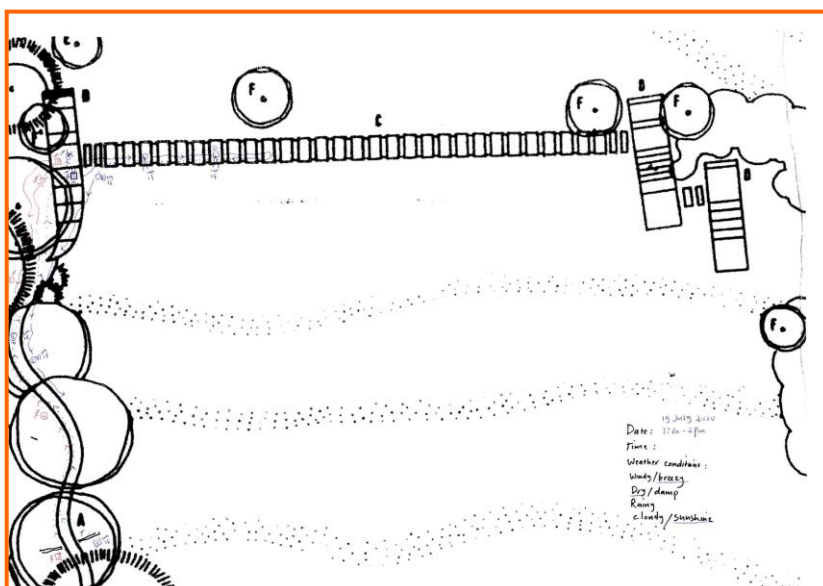
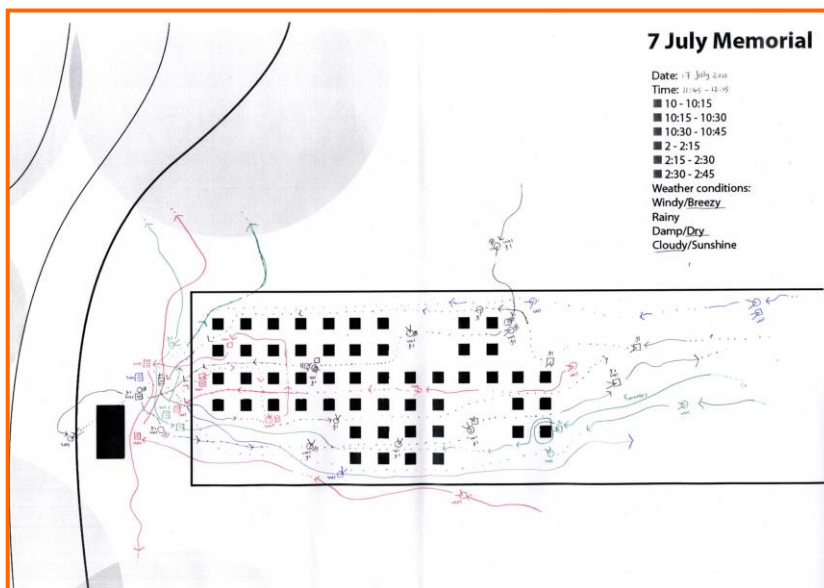
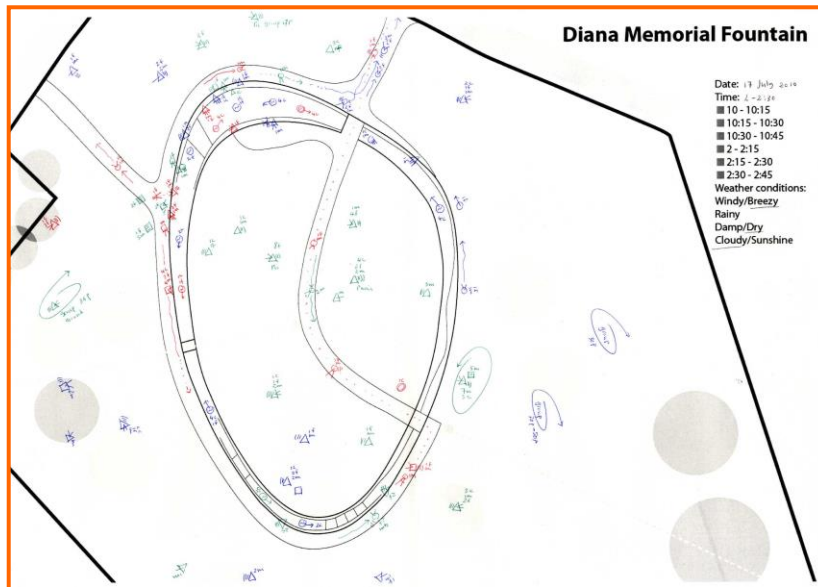


Figure 4.1: A3 size scale plans of the three memorial sites. From top down: PDMF, 7JM and JFKM

Table 4.5: A3 size activity symbols table for PDMF

[illegible]



### 4.5.3. Conclusion

The two notions identified by Cosco et al. (2010) for mapping behaviour in outdoor environments are behaviour setting and affordance. The method of behaviour mapping was adapted from the studies of Cosco et al. and Hussein (2009) about observing children in outdoor environments. The researcher started observation by recording the gender of visitors and their activities on an A3 scale site plan, using a set of behaviour symbols placed against site behaviour settings/zones. This inseparability of the site's physical attributes and activities from behaviour settings is adaptable to the transactional view embraced by this research methodological framework.

After piloting the users' questionnaire, the survey was modified based on the results of the pilot study, participants' comments and the researcher's further reading and observation about the methodology. The visitor's questionnaires were distributed on-site by the researcher, and consist of five parts: general questions, SPPCV, SEA, participants' design preference and personal information.

## 4.6. Research case studies

### 4.6.1. Research case studies selection

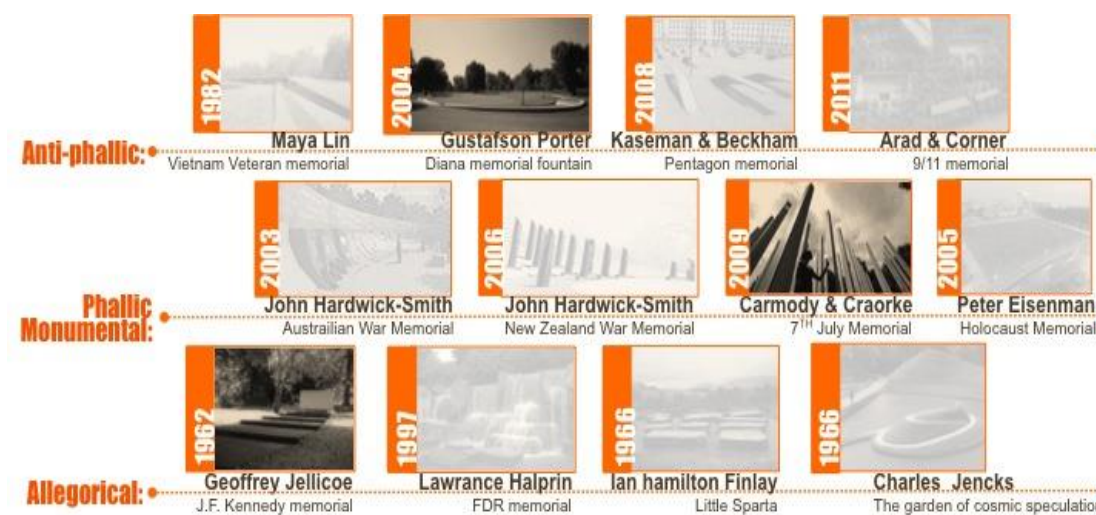


Figure 4.2: The three case study memorials as part of contemporary memorial taxonomy

Chapter Two presented a taxonomy for contemporary memorial landscapes based on design approach and the way that memorial meanings are translated and symbolised through design elements and physical attributes. The categories are: invisible, anti-phallic, phallic, allegorical and evolving (see Chapter Two for more details). The case study memorials were chosen based on the following criteria:

**i. Design style**

The three research case studies (PDMF, 7JM and JFKM) were defined as modern or contemporary in literature, and have been widely publicised.

**ii. Memorial controversy**

Despite the popularity of the three memorials in terms of their unique design approaches, a lot of controversy was raised over their use and efficiency. PDMF was criticised for being inappropriate as a tribute for a beloved princess like Diana, in addition to having technical problems since its opening in 2004. 7JM was not perceived as a powerful enough memorial by scholars and the public. JFKM was described as a meaningless piece of stone and accused of being under-used by the public; furthermore, it fostered political debate because the land on which it stands was gifted by the royal family to the US, despite being in the area where the Magna Carta was sealed in 1215.<sup>28</sup>

**iii. Contemporary memorial taxonomy**

The case studies present three different design approaches: Anti-phallic (PDMF), phallic (7JM) and allegorical (JFKM) (see Figure 4.2).

**iv. Time and funding**

The selection of the site locations was also limited by what could be achieved with the funding available and the time required to distribute users' questionnaires and conduct behavioural observation.

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<sup>28</sup> This discussion was summarised in the literature review.

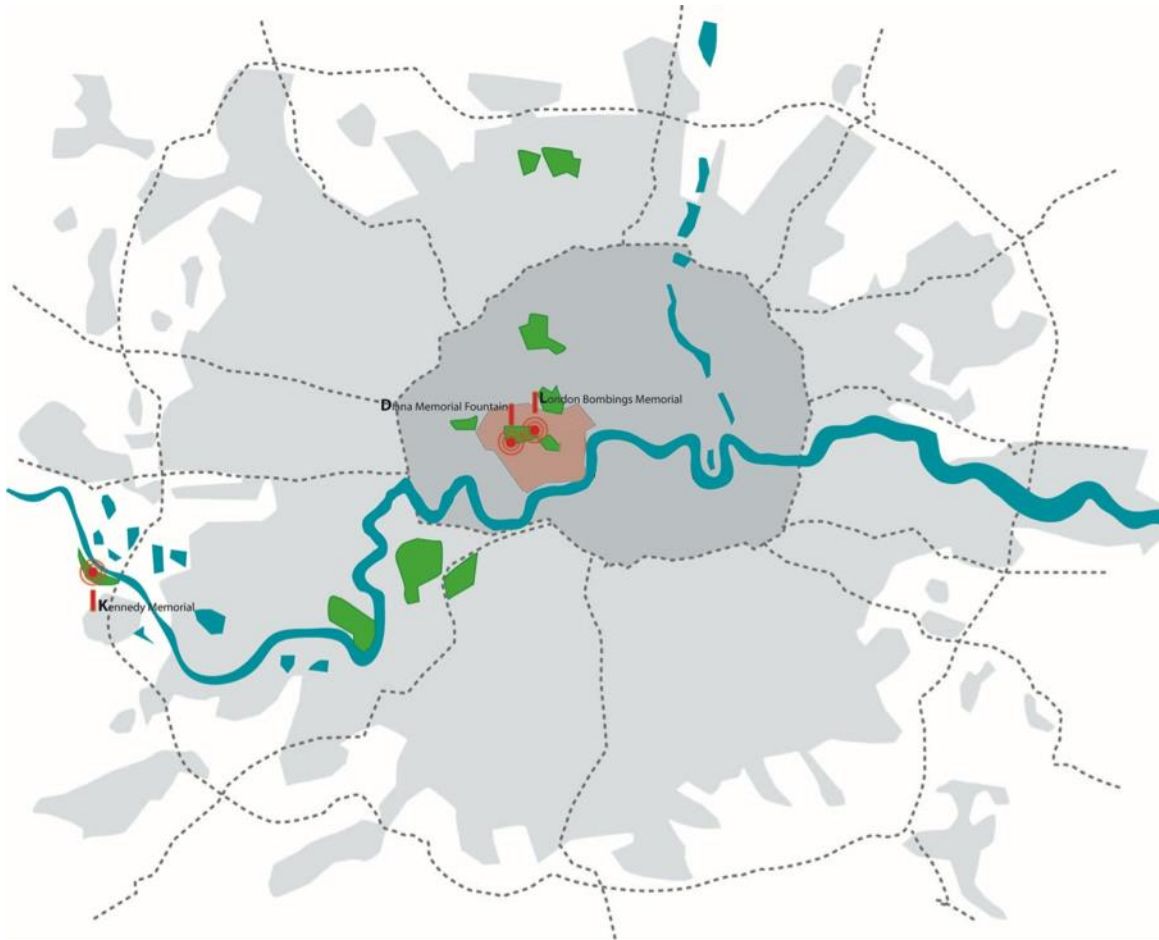


Figure 4.3: The three case study locations in London

#### 4.6.2. Descriptive summaries of research case studies

##### 4.6.2.1. Princess Diana Memorial Fountain (PDMF)

International landscaping practice Gustafson Porter won the competition to design the Princess Diana Memorial Fountain (PDMF) in Hyde Park, as announced by the Department of Culture, Media and Sport on 31<sup>st</sup> July 2002. This pioneering practice is run by Kathryn Gustafson, an American landscape architect, and Neil Porter, a British architect and designer. The memorial was opened by Her Majesty the Queen on 6<sup>th</sup> July 2004, and the fountain was turned off twice in the same month when it became blocked with tree leaves and for safety reasons.

The fountain was described by project sponsor the Royal Parks as the result of the best material, technology and talent; it contains 545 pieces of Cornish granite, each shaped by the most advanced computer controlled machinery at that time and pieced

together using traditional skills.<sup>29</sup> It was constructed out of a durable material that can withstand maintenance regime and encourages people to touch, sit and interact. The site is located between the Lido Restaurant and Lido car park on the south side of Serpentine in Hyde Park (see Figure 4.4).

In addition to the reasons mentioned in the previous section, this memorial was chosen for its uniqueness in the way its subject meaning was translated into a playful



Figure 4.4: PDMF aerial view (Gustafson and Amidon, 2004: 112) and humble design. It was intended to attract a wide range of visitors, particularly families and children. In an interview with this researcher, Greg McErlean, the site manager, stated that this reflects Princess Diana's character and her love and admiration for children.<sup>30</sup> It is a landscape for interaction, playfulness and recreation.

#### *Design meanings and symbolism*

Most information in this section is adapted from the designer's description of the memorial concept in the Planning Notification Report, submitted in December 2002, and the project client and sponsor memorial web pages.

<sup>29</sup> Retrieved on 10<sup>th</sup> April 2012 from [www.royalparks.org.uk](http://www.royalparks.org.uk).

<sup>30</sup> Interviews with PDMF, 7JM and JFKM site managers, Greg McErlean, Edward Strickland and Annie Thomas, were conducted in summer 2010, and will be used in future research due to research time and funding limitations.



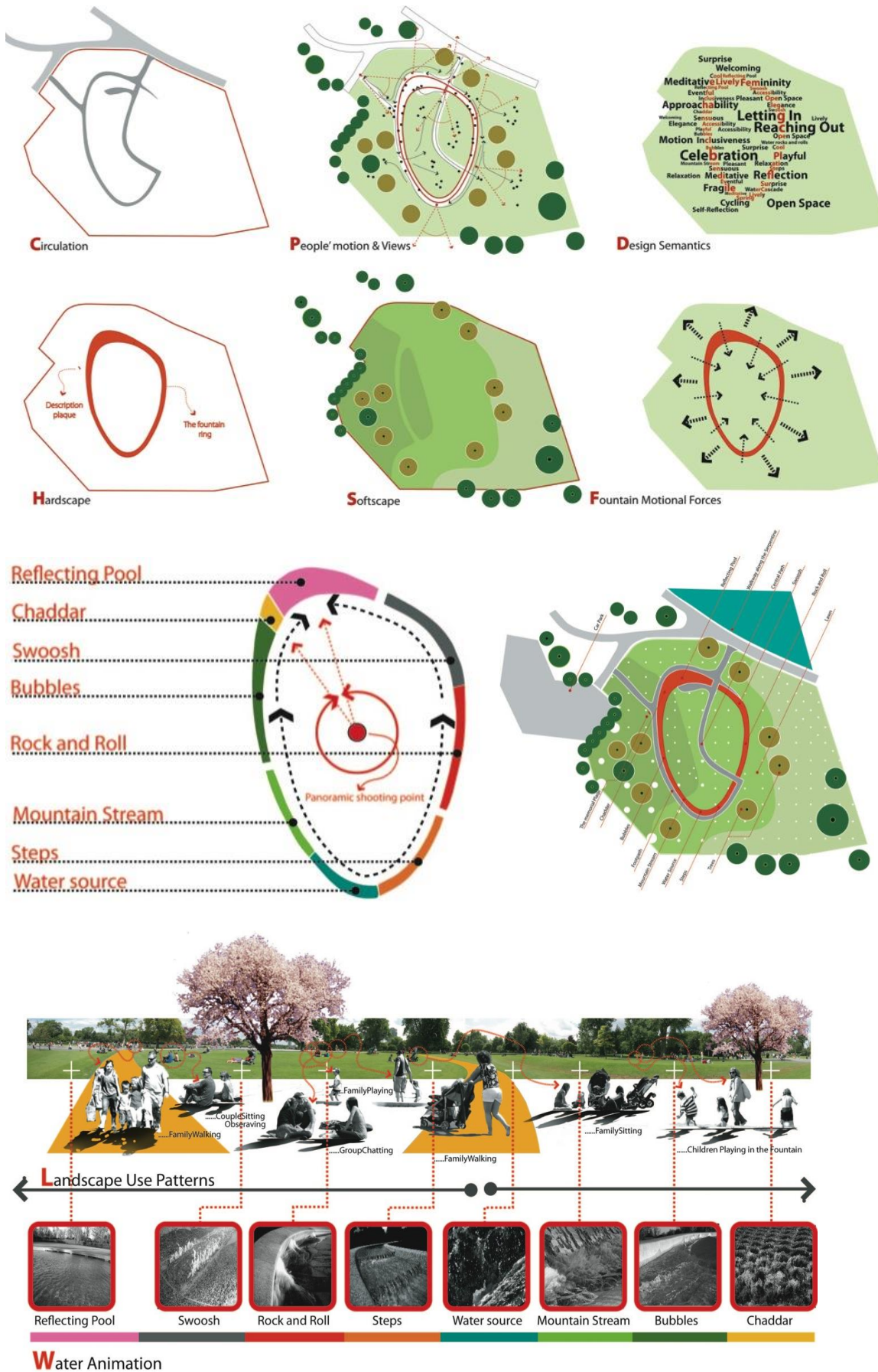


Figure 4.5: PDMF preliminary design analysis as part of the pilot study (by the researcher)

The competition scheme concept was an 'oval water feature set lightly across the existing contours of the site'; it measures approximately 50.4 metres by 81.3 metres in length, and varies in width between 1.5 and 7 metres at the bottom of the site. The feature uses the topography to divert the water downhill in two directions. The design goal was to reflect Princess Diana's life; water flows from the highest point in two directions as it cascades, swirls and bubbles before meeting in a calm pool at the bottom. The water is constantly being refreshed and is drawn from London's water table (Gustafson Porter, 2002). In addition to the oval stone water feature, the scheme includes new landform integrated within the existing landscape, new planting and trees, hard and soft paths, borehole, storage tank and chlorination plant.

The main concept expressed in the proposal is 'Reaching out - Letting in'. This is based on qualities of Princess Diana's personality such as her inclusiveness and



Figure 4.6: PDMF photos (1 and 2: Gustafson and Amidon (2004: 117), 3: this researcher) accessibility. The oval shape surrounded by the open landscape has energy that radiates outwards while attracting people inwards at the same time (see Figure 4.5 for design analysis by this researcher).

It takes a three-sided shape, with corners where there are specific features of the active water: the Stepped Cascade, Swoosh and Chaddar Cascade, which are visible from a distance. The designers have stated that they were intended to draw people toward the fountain. This aim will be compared with the observation and behavioural

mapping of this research. The stone edge raised above the ground at the corners provides a bench for sitting. The water features, which are described in the information plaque at the site as an expression of various stages in Diana's life, are illustrated in Figure 4.5. They are from top down as follows: water source, stepped cascade, rock and roll, swoosh, bubbly, chaddar cascade and reflecting pool at the low point of the fountain.

*Design elements/behavioural settings for mapping observation*

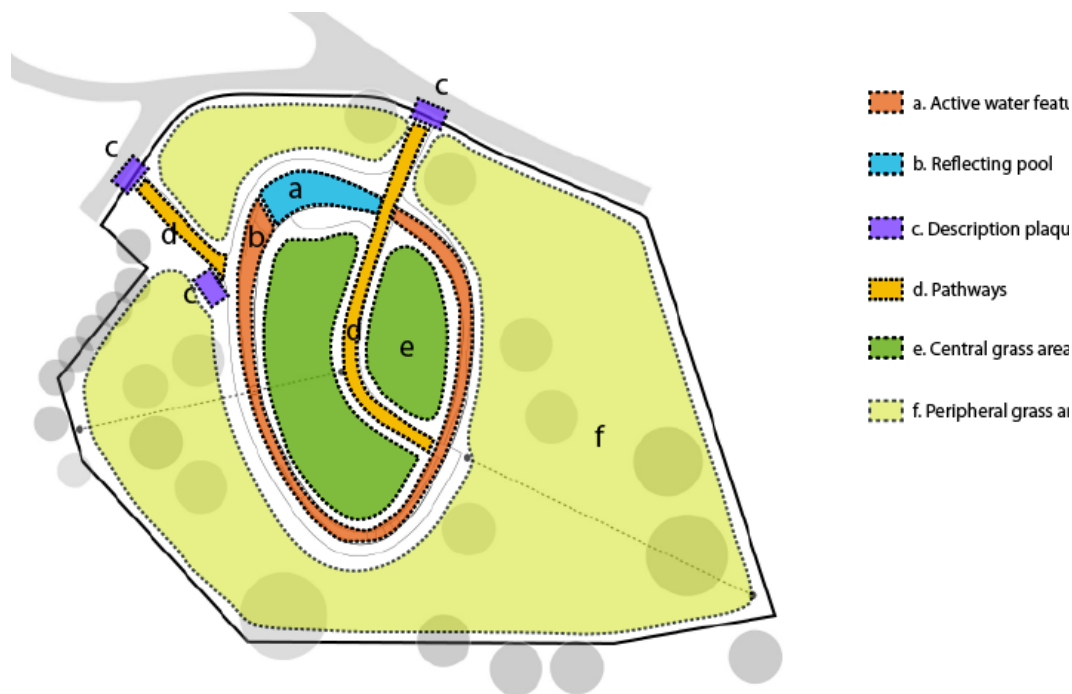


Figure 4.7: PDMF behavioural settings/design zones

Figure 4.7 presents the design elements or zones prepared by this researcher to record visitors' behaviours against site properties:

- a. Calm water/reflecting pool;
- b. Active water features, including source, steps, stream, rock and roll, bubble, swoosh and chaddar;
- c. Description plaques;
- d. Pathways;
- e. Central grass area;

f. Peripheral grass area.

#### 4.6.2.2. 7 July Memorial (7JM)

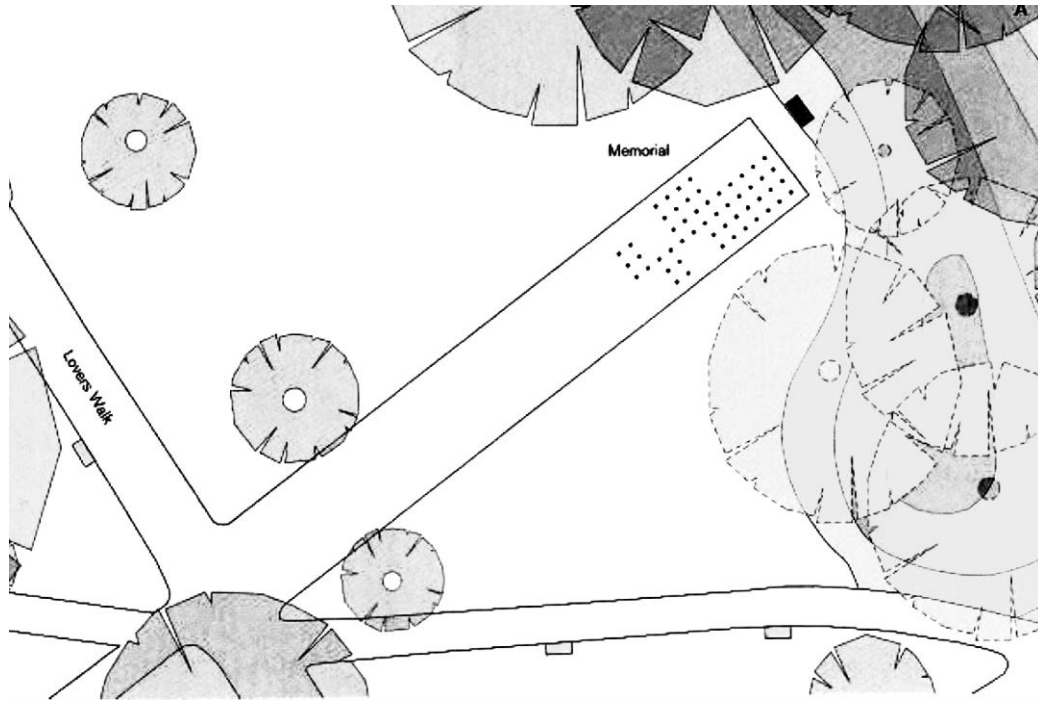


Figure 4.8: Memorial site plan, showing the field of 52 pillars, the names plaque, the memorial path and benches at distance and the surrounding landscape (Long, 2009)

The 7 July memorial was designed by Carmody Groarke, a relatively new architecture practice based in London. It is situated on a site in the east of London's Hyde Park, close to Hyde Park Corner (see Figure 4.8). The location was chosen by the architect for its separation from the park and its intimacy, which was enhanced by creating a semicircular mound and adding two trees. The architects looked at the park's history and chose a site next to Park Lane, where a path had once led to a gate before they were removed in the 1970s during road widening. One of the initial suggestions for the location was Tavistock Square, where 13 people died aboard the number 30 bus. It was rejected due to a concern about the importance of a more central site. Saba Mozakka, a daughter of Behnaz Mozakka, one of the bombing victims, said: 'It was important to get a location in central London which reflected the enormity of events...(w)e wanted something high profile and grand enough to show how



important those who died were and we are very proud that it is being created in Hyde Park'<sup>31</sup> (McFarlane, 2009).

*Design meanings and symbolism*

*'It is a huge responsibility to deliver something meaningful on behalf of the bereaved families'* (Andrew Graoke, as cited in McFarlane, 2009).

The memorial consists of a field of 52 columns, one for each of the 52 victims, and a plaque, which is set into the ground, listing the names of each of the victims. The memorial is approached by a wide clear path, which continues onto the straight path of the park, leading to the standing columns; the visitor can negotiate through them to reach the names plaque. Each column has a date, time and location of death inscribed on it, but not the name of a victim. The configuration of the columns is based on the grouping of the victims who died in each bomb attack - six people at Edgware Road, seven at Aldgate, 13 at Tavistock Square and 26 at King's Cross (see Figures 4.9 and 4.10).



Figure 4.9: 7 July Memorial (Carmody Groarke)

Each stele was made of cast steel by Norton Cast Products in Sheffield. Kevin Carmody, partner at Carmody Groarke, said: 'There is a poetic idea about each of the elements being made in an instant, from the same positive. There are 52 of them, and you could talk about them as having their own "personalities" through the process.' The sides of each stele look mottled and grainy, as they were cast using sand moulds by the Sheffield company. The architect also added that every column is unique because of its imperfection (Long, 2008: 26). Grahame Russell, a representative of the

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<sup>31</sup> Retrieved on 10<sup>th</sup> April 2012 from <http://news.bbc.co.uk/1/hi/uk/8125209.stm>.



Figure 4.10: The opening ceremony of the 7 July Memorial in Hyde Park in 2009

bereaved families on the project board, described the stele as imposing and tall landmarks, symbolising the existence of those who lost their lives. 'If you think about it, before 7/7 we had 52 people who stood tall in this world, and now we have 52 stele standing tall in this world,' Russell said (ibid). The plaque set beyond the clusters of pillars is the only memorial element where each of the victims' names is shown. The typeface of the plaque was designed by Phil Baines of Central Saint Martins.

The architects proposed a 'process' rather than a 'predetermined' design. They claimed that the memorial takes its meaning from involving the bereaved families in the design and construction processes and working collaboratively with them to create a commemoration place that all felt was appropriate. It was designed to provide a place to grieve and commemorate the lost lives. However, Kieran Long (2008) argued that the aim of creating this memorial was not to remember those who lost their lives in the events, as the memorial will stand for a long time after those that knew the victims are gone, nor to remind us of the actual horror of those tragic events, as it cannot compete with easily accessible 'documentary evidence' from the media.

The 7 July memorial is considered part of a new movement in memorial design: 'minimalism'. This approach signifies a shift from 'classicism' as a universal language in building memorials to a new, more abstract geometrical aesthetic tradition. 'Unlike a cenotaph terminating a pathway in a park...this memorial is about a relationship with the landscape, and the characteristic urbanism of Hyde Park. It will be a place for abstract contemplation. Or perhaps, in English terms, this is a memorial about keeping a stiff upper lip, using Minimalism's desire to remove distraction and

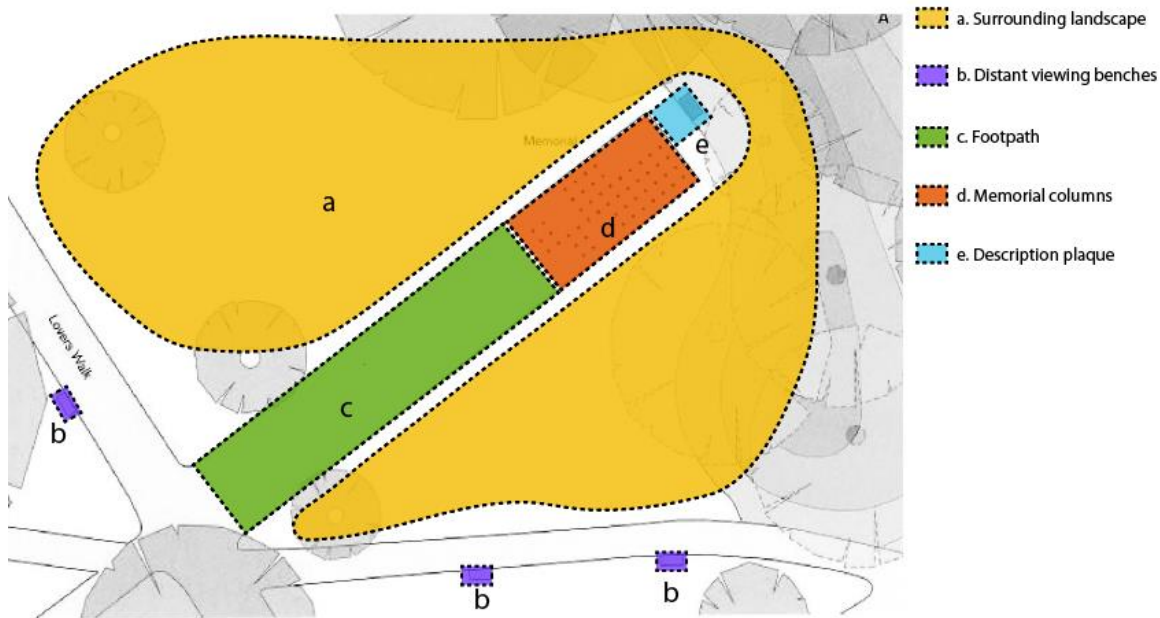


Figure 4.11: 7JM behavioural settings/design zones representation to create a place where you are forced to look inside yourself for answers' (ibid).

*Design elements/behavioural settings for mapping observation*

Figure 4.11 presents the five design elements on which behavioural observation is based:

- a. Surrounding landscape;
- b. Distant viewing benches;
- c. Footpath;
- d. Memorial columns;
- e. Description plaque.

**4.6.2.3. John F. Kennedy Memorial (JFKM)**

The John F. Kennedy Memorial is located at Runnymede, the meadow on the banks of the Thames where King John sealed the Magna Carta in 1215. Runnymede became symbolic of forcible removal of royal power and the

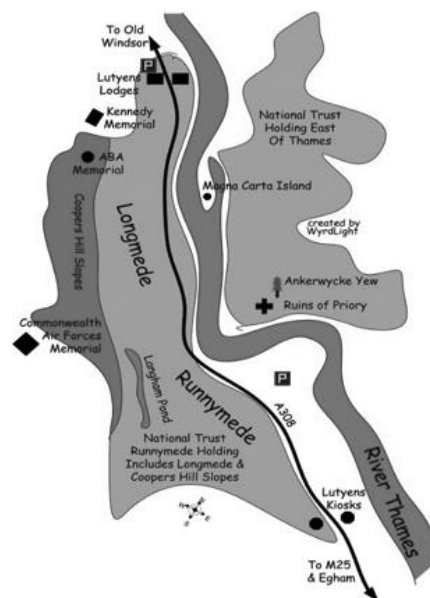


Figure 4.12: Runnymede memorials map (www.wikipedia.org)

beginning of Western democracy, which underpins the American founding myth of throwing off the tyranny of monarchy to establish a republic (see Figure 4.12<sup>32</sup>).

President Kennedy was shot dead by Lee Harvey Oswald in Dallas, Texas, on 22<sup>nd</sup> November 1963. As a result of demands from the British people for a UK site dedicated to him, Her Majesty the Queen handed over one acre of land containing the memorial to the then-Secretary of State Dean Rusk, in the presence of Jacqueline Kennedy and several British and American dignitaries. It became American soil in order to symbolise the close association between the UK and US (see Figure 4.13<sup>33</sup>).



Figure 4.13: The Queen, Jacqueline Kennedy and several British and American dignitaries at the memorial opening in

#### *Design meanings and symbolism*

*'This highly sophisticated and precise design is fitted into a landscape that is very much the reverse... There is no compromise of neatly cut grass and trim flower beds... Much is known about the creation of a normal public park or garden, but little as yet about the re-creation of natural scenery in such a way that it survives the human element...'* (Geoffrey Jellicoe).<sup>34</sup>



Figure 4.14: *The Tempest* by Giorgione Castelfranco

The memorial was designed by Sir Geoffrey Jellicoe, the UK's most celebrated twentieth century landscape architect, in 1965. It was inspired by *Pilgrim's Progress*, Bunyan's allegory of life as a journey.

<sup>32</sup> Retrieved on 28<sup>th</sup> March 2014 from <http://en.wikipedia.org/wiki/File:Runnymedediagram.jpg>.

<sup>33</sup> Retrieved on 30<sup>th</sup> March 2014 from [www.jfklibrary.org](http://www.jfklibrary.org).

<sup>34</sup> Retrieved on 12<sup>th</sup> March 2014 from [www.kennedytrust.org.uk](http://www.kennedytrust.org.uk).



Geoffrey Jellicoe sought to lift the subject of this memorial (the assassination of a US President) beyond daily events and personal thoughts, so that the memorial would embrace universal principles. The journey to which the visitor is invited resembles that in *Pilgrim's Progress*: 'the journey of the visitor's eyes through what is seen being mirrored by a deeper one into the unseen landscape of life, death and spirit.'<sup>35</sup>

There were a number of influences on Jellicoe's design. These include two sixteenth century paintings: *The Allegory of the Progress of the Soul* by Giovanni Bellini and *The Tempest* by Giorgione Castelfranco (see Figure 4.14). Furthermore, the main design concept was born during his visit to Japan where he learnt to appreciate the Japanese respect for still objects in their gardens. In his

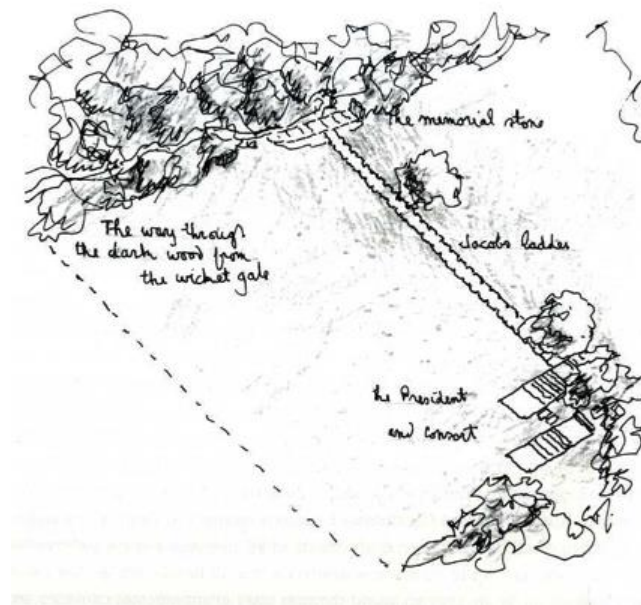


Figure 4.15: Jellicoe's memorial design sketch, 1962

view, the design result was the visitors' visual impression together with the dark allegory that lay behind it.

Visitors (pilgrims) to the memorial begin their allegorical journey by walking across a vast, flat grassland of pasture on the south bank of the river Thames, led by the desire lines left by previous visitors. This leads to the memorial wicket gate, through which the journey of life, death and spirit starts. They begin climbing the steep pathway winding through the dark woodland. There are 50 steps, reflecting the number of American states, and they are made up of 60,000 granite stones, sweeping up through the woodland to bring the visitors to the glade. The dark wood surrounding the pathway is an important element in the memorial, recalling Dante's 'dark wood'. The woodland change of seasons reflects life, death and spirit. This self-

<sup>35</sup> Retrieved on 12<sup>th</sup> March 2014 from [www.kennedytrust.org.uk](http://www.kennedytrust.org.uk).

generating ecological system symbolises the mystery of nature as one of the driving forces in one's life (Jellicoe, 1983) (see Figure 4.15).

At the crest of the hill sits the memorial stone. It is a seven-ton Portland stone,

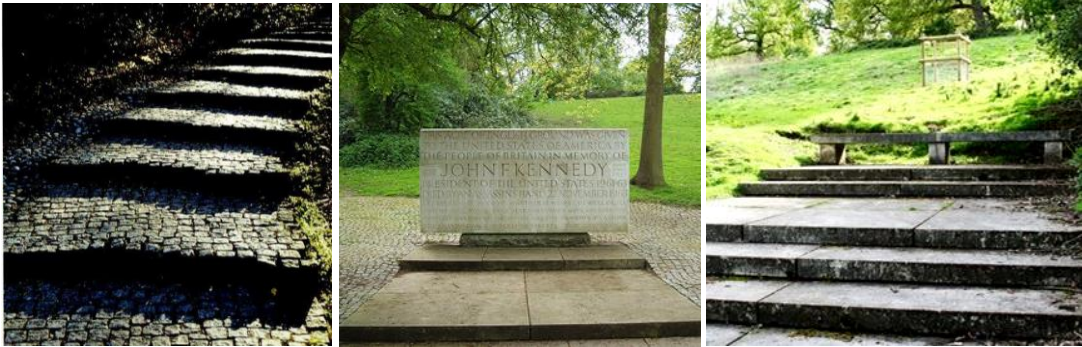


Figure 4.16: John F. Kennedy memorial (by this researcher)

imperceptibly curved in all directions so as to give the impression of a heavy object floating above the ground. This symbolises the body, as described by Jellicoe in one of his interviews.<sup>36</sup> A quotation from Kennedy's Declaration of Freedom in his 1961 speech is inscribed across the entire stone; it appears less like an inscription and more



Figure 4.17: John F. Kennedy memorial ([www.landscapeinstitute.org](http://www.landscapeinstitute.org))

as if the stone itself is speaking. A hawthorn tree was planted beside the stone as a symbol of the President's Catholicism, along with an American Scarlet Oak standing behind the stone, which comes into vivid red at the time of Kennedy's death in

<sup>36</sup> From Jellicoe's interview in a documentary about the John F. Kennedy memorial. Retrieved on 22<sup>nd</sup> March 2014 from [www.youtube.com/watch?v=cxOUJYXvrVY](http://www.youtube.com/watch?v=cxOUJYXvrVY).

November. The steps in front of the stone widen and become shallow. At this point, the three elements of life, death and spirit meet (ibid).

To the right of the stone, a detached terrace walk starts and leads into the future like 'Jacob's ladder'. The walkway directs the visitor to two *seats of contemplation* embedded into the hillside, symbolising king-queen or man-woman relationship, from which visitors contemplate life and death and look into the future. Geoffrey Jellicoe stated: 'The peaceful scene is itself the memorial, and what has been fitted into it is no more than a statement of purpose – an intangible idea that is emphasised by the duality of the design'<sup>37</sup> (see Figures 4.15, 4.16 and 4.17).

Tim Richardson from the *Telegraph* stated, '[T]he secret to the Kennedy Memorial's success is the fact it is not so much a memorial as a memorial landscape. It's all about movement through space, followed by stillness. The memorial stone itself is only one element of this designed landscape. It's essentially a walk uphill through woodland, the path emerging at the monumental stone with views back down across the river. But it's considerably more profound than it sounds' (Richardson, 2013).<sup>38</sup>

#### *Jellicoe and the 'subconscious'*

Jellicoe became interested in the work of Carl Jung in 1964, and his design for the Kennedy memorial was inspired by the concept of 'unconscious' in Jung's theories. Tom Turner believed that Jellicoe's reading of Jung's works persuaded him that the allegory of life, death and spirit lying beneath this memorial's design derived from the 'collective unconscious'. Jellicoe commented that this allegory was realised only through the visitor's subconscious (Jellicoe, as cited by Turner, 1998). Through Jung's work, he realised that the subconscious could be enlisted to emphasise the conscious and the tangible in landscape architectural design.

This research aims to unveil some of the hidden dimensions of this memorial allegory and most important design aspects, 50 years after its construction, from the users' point of view. This was aided by the users' questionnaire, which included questions

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<sup>37</sup> Retrieved on 12<sup>th</sup> March 2014 from [www.kennedytrust.org.uk](http://www.kennedytrust.org.uk).

<sup>38</sup> Retrieved on 28<sup>th</sup> March 2014 from [www.telegraph.co.uk/gardening/gardenstovisit/10451578/The-JFK-memorial-at-Runnymede-is-fit-to-stand-forever.html](http://www.telegraph.co.uk/gardening/gardenstovisit/10451578/The-JFK-memorial-at-Runnymede-is-fit-to-stand-forever.html).

about both personal projects and motivation and memorial environmental attributes that make the place special.

*Design elements/behavioural settings for mapping observation*

There are six main elements to the memorial identified by this researcher and illustrated in Figure 4.18:

- a. Memorial entrance with a wicket gate, by which the description plaque of the design concept is placed;
- b. A stepped pathway;
- c. A seven-ton block of Portland stone;
- d. A straight paved pathway (described by Jellicoe as the 'ladder of Jacob') leads to the Seats of Contemplation, from where there is a superb view of Runnymede;
- e. The Seats of Contemplation, the end of the visitors' allegorical journey.

These design elements (or behavioural settings) were the basis for the site's zones for behavioural observation mapping, where each activity engaged with by users was placed against one zone (see Figure 4.18).

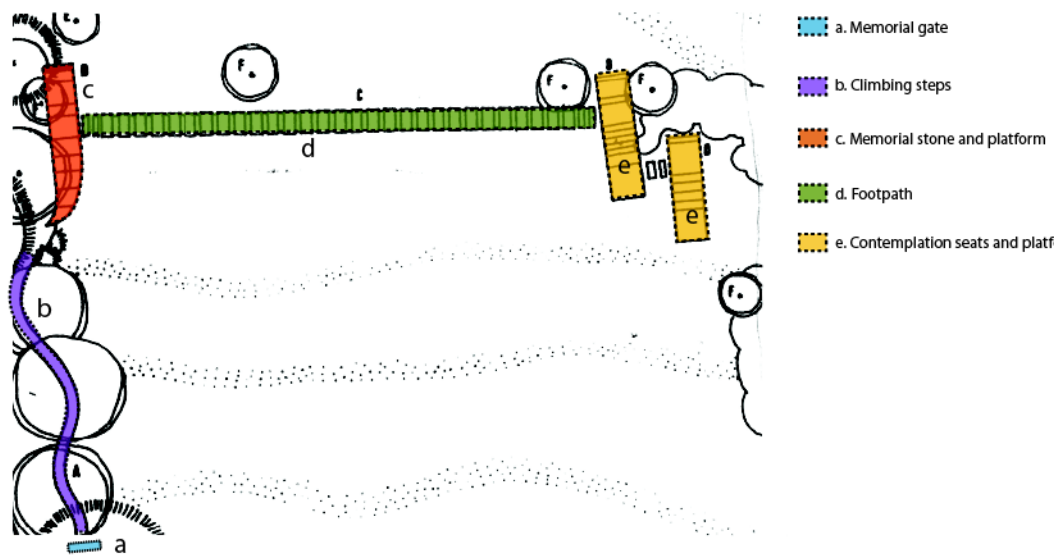


Figure 4.18: JFKM behavioural settings/design zones



#### **4.7. Research by design: Conceptual reflection through practice**

Research by design acted as design and spatial manifestations of contemporary memorial theories and practices, as found in the literature review and explored through its empirical study. This design inquiry embraced Schon's theory of reflective practice (1983), supported the research triangulation and worked as a complementary part to qualitative and quantitative methodologies. It includes post-evaluation process through data collection and analysis of the visitors' questionnaires at the design exhibition, which was organised as the last stage of the design research process. The research personal project questionnaire acted as a model for this exhibition survey (see Figure 4.19). The design project and its methodology is explained thoroughly in Chapter Six.

The exhibition visitors' questionnaire consists of three parts:

1- Multi-choice questions about design perception and evaluation:

- Do you like the overall project design?
- Do you think that the design is appropriate as a commemoration of Palestinian displacement?
- How important is the Palestinian displacement to you?
- How informative/educational is this design for you?
- How healing/cathartic do you think this memorial design will be for its visitors after construction?

2- Open-ended questions:

- What aspects do you like the most about the project?
- What aspects do you think could be improved in the design?

3- Demographic information:

- Name
- Gender
- Nationality
- Profession
- Email



## Visitor's Survey for Al-Nakba Memorial Design Exhibition

All information in this survey will be kept confidential and used only for research purposes

Please answer the following questions on 5-point scale: 1= Not at all. 5= Very much

1- Do you like the overall project design?

1	2	3	4	5
---	---	---	---	---

2- Do you think the design is appropriate as a commemoration for Palestinian Nakba/displacement?

1	2	3	4	5
---	---	---	---	---

3- How important is the Palestinian Nakba memorial concept for you?

1	2	3	4	5
---	---	---	---	---

4- How informative/educational is this project design for you?

1	2	3	4	5
---	---	---	---	---

5- How healing/cathartic do you think this memorial project will be for its visitors (after construction)?

1	2	3	4	5
---	---	---	---	---

6- What aspects do you like most about the project design?

a .....

b .....

c .....

7- What aspects do you think could be improved in the project design?

a .....

b .....

c .....

8- Other comments:

a .....

b .....

9- Other information (Optional):

Name:

Gender:

<input type="checkbox"/>	Male	<input type="checkbox"/>	Female
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Nationality:

Profession:

Email:

*Thank you very much for visiting the exhibition and for completing this survey*

Figure 4.19: Exhibition visitors' questionnaire

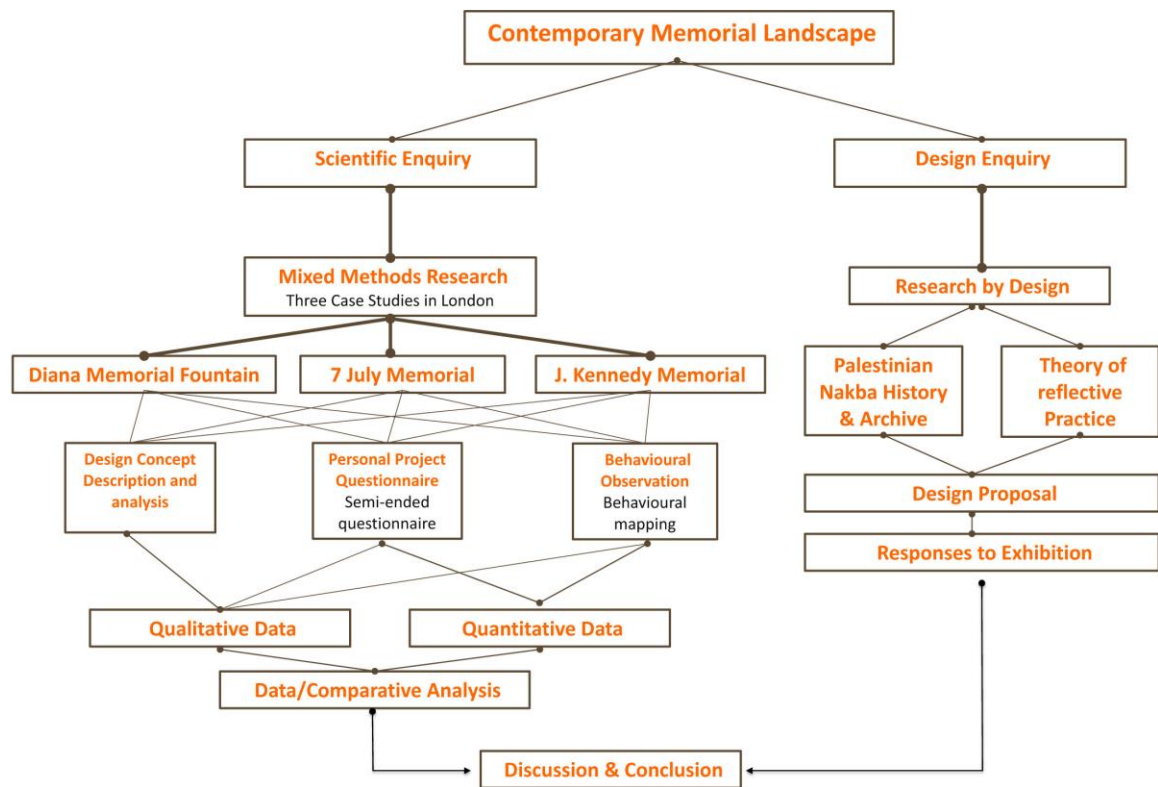


Figure 4.20 Research methodologies

# CHAPTER FIVE:

## Data Results

### 5.1. Introduction

This section is divided into two parts, based on both qualitative and quantitative data extracted from the users' questionnaire. The defined aspects of person-environment relationship from the two sources are inseparable, and co-exist as intrinsic qualities of a holistic event (Altman and Rogoff, 1987). Moreover, data was derived from different distinctive parts of the questionnaire.

As discussed in Chapter Four, the users' questionnaire consists of five parts:

- I. Generic questions about memorial visiting experience: for instance, number of times respondents have visited the memorial, how much they knew about it prior to their visit and with whom they made their visit;
- II. Supportiveness of personal projects and memorial communication values (SPPCV): for instance, the importance of the memorial to respondents and the strength of their feeling of belonging to the memorial place. For each question, respondents were asked to give the reasons for their scores;
- III. Supportiveness of environmental attributes (SEA): respondents were asked to rate their level of engagement with different activities at memorial sites;
- IV. Memorial design preferences;
- V. Personal information such as gender, age, profession and nationality.

This chapter will present the findings of the quantitative and qualitative data analysis from the three case study sites: Princess Diana Memorial Fountain (PDMF), 7 July Memorial (7JM) and John F. Kennedy Memorial (JFKM). This includes descriptive analysis of all variables, factor analysis of SPPCV and SEA variables, correlations and ANOVA analysis among all variables.

### 5.2. Results of visitors' questionnaires from the three case study sites

### 5.2.1. Results of quantitative data from the visitors' questionnaire

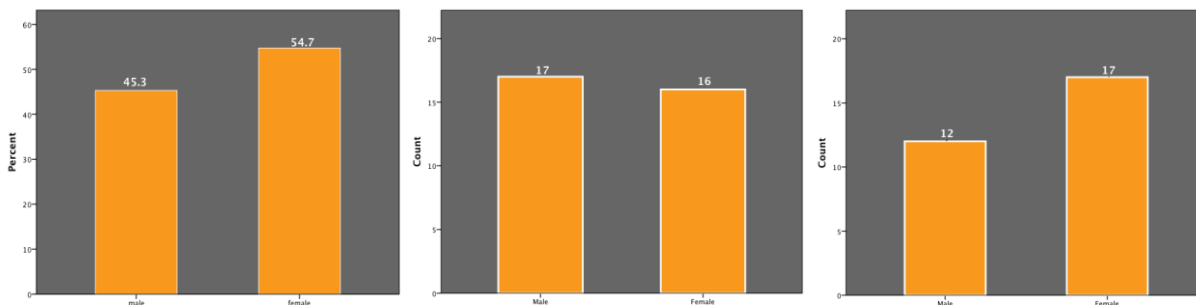
#### 5.2.1.1. Descriptive analysis

This section will present the results of the demographic and generic data of the participants and their visits, in addition to the findings from SPPCV and SEA. The total number of PDMF valid questionnaires received in the post was 53 (n=53) out of 160 (n=160) distributed on-site, giving a 33% response rate. The number of 7JM questionnaires received, meanwhile, was 34 (n=34) out of 160 (n=160) distributed on-site, giving a 21% response rate. At JFKM, 160 (n=160) questionnaires were distributed to users on-site, and 31 (n=31) were received in the post, resulting in a 19% response rate.

#### 5.2.1.1.1. Profile of respondents and visit generic information

##### Gender

##### •PDMF



From left to right: Graph 5.1: PDMF respondents' gender  
 Graph 5.2: 7JM respondents' gender  
 Graph 5.3: JFKM respondents' gender

The number of male respondents was smaller than the number of female respondents. Male respondents represented 45.3% of the sample with a total number of 24, while females made up 54.7% of the sample with a total number of 29 (see Graph 5.1). Given that the questionnaires were distributed on-site, the data collected reflects the fact that in actual use the proportion of female users is higher than males.

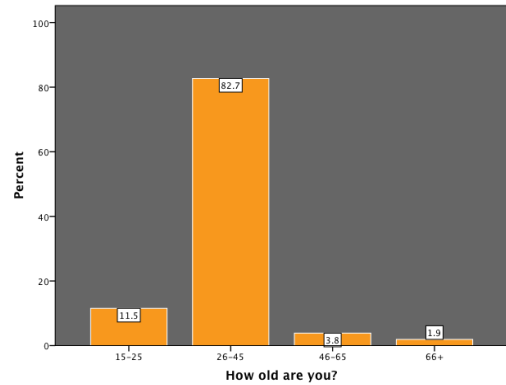
##### •7JM

In 7JM, the number of male respondents was slightly higher than the number of females. Male respondents numbered 17, and made up 52% of the sample, while

females numbered 16, representing 48% of the sample. There was one missing value (see Graph 5.2).

#### •JFKM

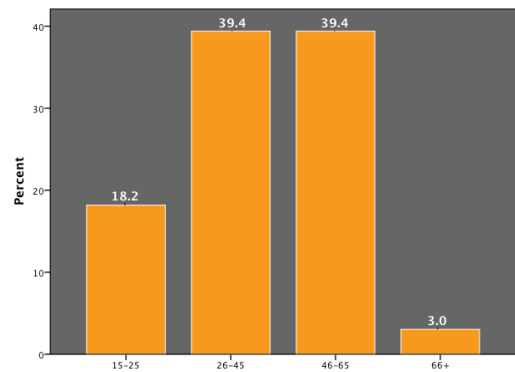
Graph 5.3 shows that the number of female respondents at JFKM was higher than the number of males. Male and female accounted for 42% and 58% respectively; males numbered 12 and females 17, with two missing values (see Graph 5.3).



Graph 5.4: PDMF respondents' age groups

#### •PDMF

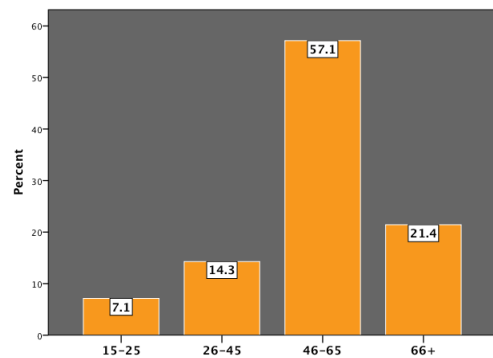
The data presented in Graph 5.4 shows that 82.7% of the respondents were between 26 and 45 years old, while people aged 15-25 represented approximately one-tenth of the sample. The groups aged between 46 and 65 and aged over 66 accounted for 3.8% and 1.9% respectively in this case study.



Graph 5.5: 7JM respondents' age groups

#### •7JM

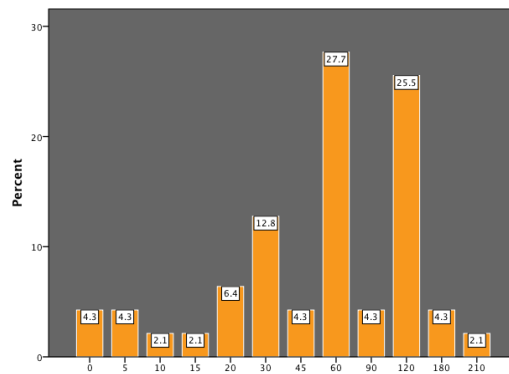
Graph 5.5 shows that the age groups 15-25, 26-45, 46-65 and over 66 accounted for 18.2%, 39.4%, 39.4% and 3% respectively. At this memorial, the data shows that the percentage of respondents between the age of 46 and 65 was higher than the corresponding percentage in PDMF.



Graph 5.6: JFKM respondents' age groups

### •JFKM

Graph 5.6 shows that the highest percentage of respondents was from the age group 46-65. Respondents aged 66 and over made up 21.4% of the total sample of this memorial. 14.3% were from the age group 26-45, while respondents aged 15-25 made up 7.1% of the sample.

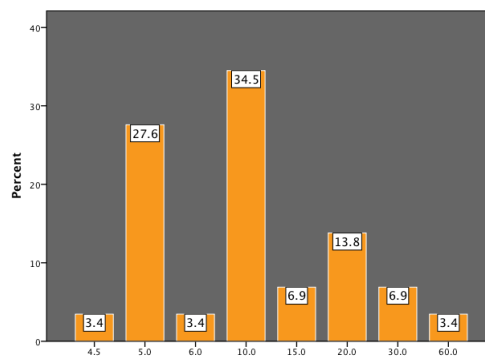


### The length of the visit

#### •PDMF

The results of the PDMF data show that the majority of respondents spent either one or two hours at the memorial site; these groups made up 27.7% and 25.5% respectively. 12.8% spent 30 minutes at the site, while the rest stayed for periods varying from 5 to 210 minutes.

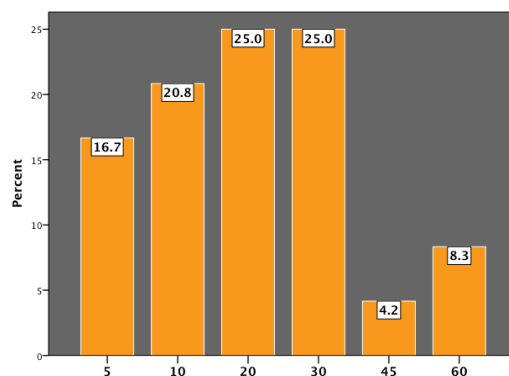
Graph 5.7: PDMF respondents' length of visit



Graph 5.8: 7JM respondents' length of visit

#### •7JM

At this memorial, the results of the data analysis show that the majority of respondents stayed for either 5 or 10 minutes; these groups accounted for 27.6% and 34.5% respectively. Respondents who spent 4.5, 6, 15, 30 or 60 minutes accounted for 3.4%, 3.4%, 6.9%, 6.9% and 3.4% respectively. The difference between these data results and those from the PDMF data collection reflects the different design natures of each memorial.



Graph 5.9: JFKM respondents' length of visit

### •JFKM

Graph 5.9 shows that half of the respondents spent either 20 or 30 minutes at the memorial site with a percentage of 25% for each period, while the visit duration of 20.8% of the respondents was 10 minutes. A small percentage of respondents spent either 45 or 60 minutes. 4.2% spent 45 minutes, while 8.3% spent 60 minutes. 16.7% of respondents spent only five minutes at the JFKM memorial site.

### Nationality

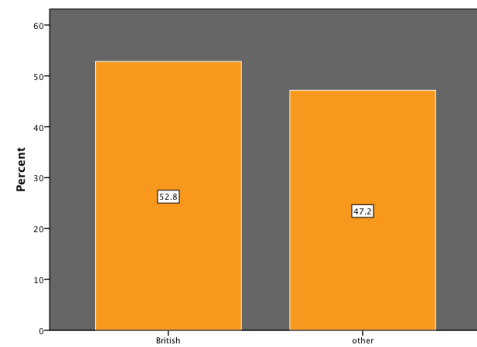
#### •PDMF

British respondents constituted 52.8% of the sample, while other nationalities made up 47.2% (see Graph 5.10). This researcher believes that this result is due to the multicultural population of London and the popularity of memorials among tourists.

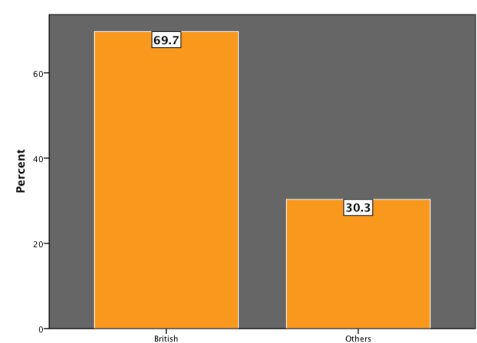
#### •7JM

Graph 5.11 represents the nationality percentages of 7JM respondents. The percentage of British respondents was higher than that of other nationalities. 69.7% of the sample was British, while 30.3% was made up of other nationalities. The results of the data show that this memorial is less popular than PDMF among tourists and foreigners.

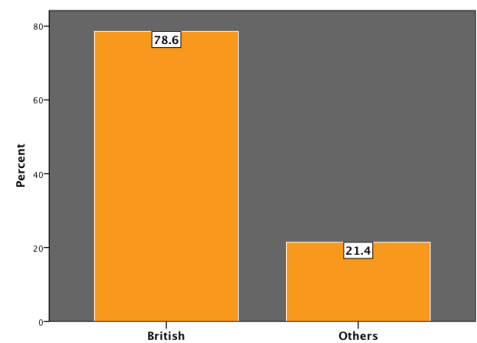
#### •JFKM



Graph 5.10: PDMF respondents' nationalities



Graph 5.11: 7JM respondents' nationalities



Graph 5.12: JFKM respondents' nationalities

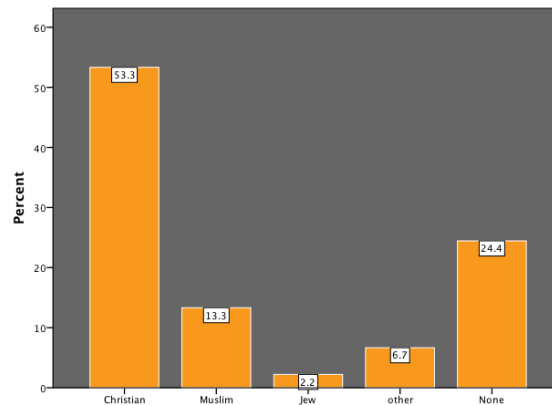


At this memorial, the percentage of British respondents was higher than those of other nationalities. British respondents made up 78.6% of the total sample, while other nationalities made up 21.4% (see Graph 5.12).

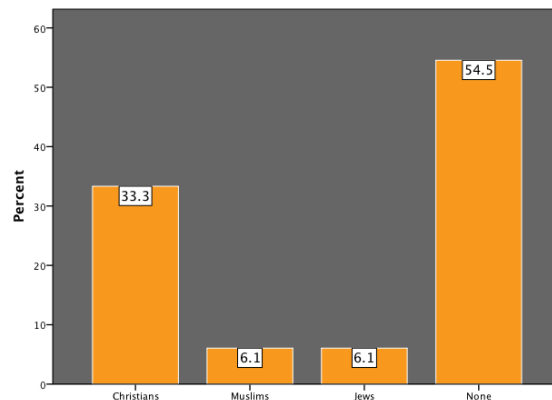
### Faith

#### •PDMF

Of the total number of respondents at PDMF, 53.3% were Christians, while Muslims, Jews and other religions made up 13.3%, 2.2% and 6.7% respectively. Respondents of no religion constituted 24.4% of the total sample (see Graph 5.16).



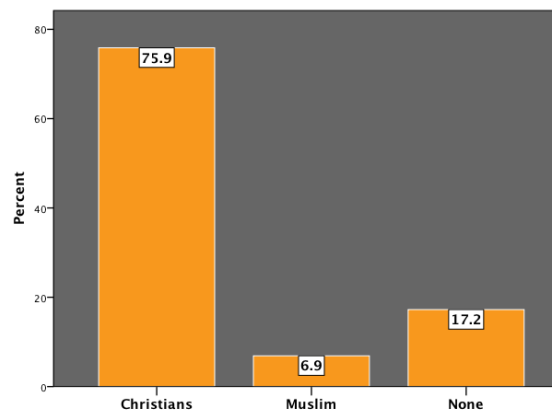
Graph 5.13: PDMF respondents' beliefs



Graph 5.14: 7JM respondents' beliefs

#### •7JM

At this memorial, the data results show that 33.3% were Christians, 6.1% were Muslims and 6.1% were Jews; respondents of no religion accounted for 54.5% of this memorial sample (see Graph 5.17).



Graph 5.15: JFKM respondents' beliefs

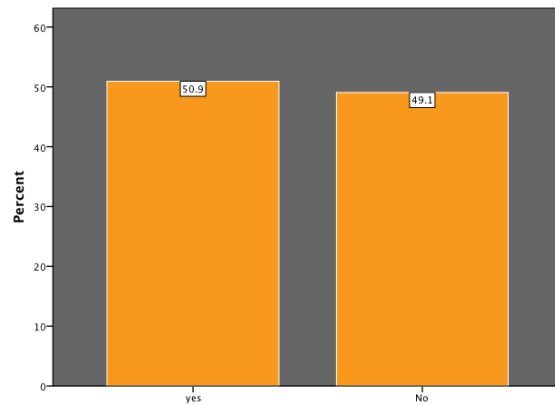
#### •JFKM

Christian respondents accounted for 75.9% of the sample, while Muslims made up 6.9% and those of no religion 17.2% (see Graph 5.18).

### Familiarity with the site

#### •PDMF

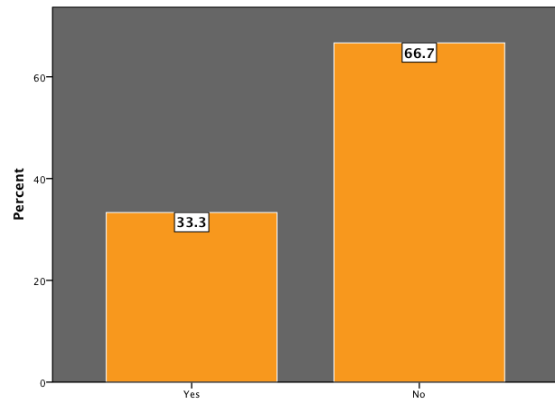
To the question regarding knowledge about the site and its design prior to the visit, 50.9% of PDMF respondents answered yes, while 49.1% answered no (see Graph 5.19).



#### •7JM

Graph 5.20 shows that 33.3% of respondents knew about the memorial site and design prior to their visits, while 66.7% of respondents did not know about it prior to their visit.

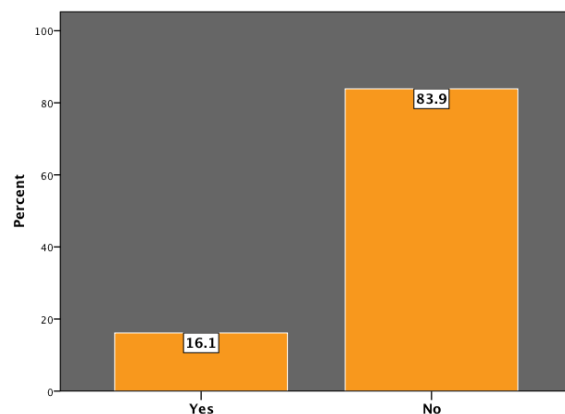
Graph 5.16: PDMF respondents' familiarity with the site prior to their current visit



#### •JFKM

At this memorial, of the sample, respondents who knew about the memorial design before their visit made up only 16.1%, while those unfamiliar with it made up 83.9% (see Graph 5.21).

Graph 5.17: 7JM respondents' familiarity with the site prior to their current visit



### Company

#### •PDMF

This data gives more insight into the usage of the memorial site by different groups, family members and individuals. Graph 5.22 shows that the majority of people attending the site did so as part of

Graph 5.18: JFKM respondents' familiarity with the site prior to their current visit

a group, family or couple. 37.7% of respondents visited the site with a group, while 30.2% of respondents were with family members. People visiting the memorial with their partner constituted 26.4% of the sample, while individuals made up only 5.7%.

### •7JM

36.4% of the total sample of 7JM respondents were visiting with their partners, while those visiting alone, those visiting with family members and those in groups each made up 21.2% (see Graph 5.23).

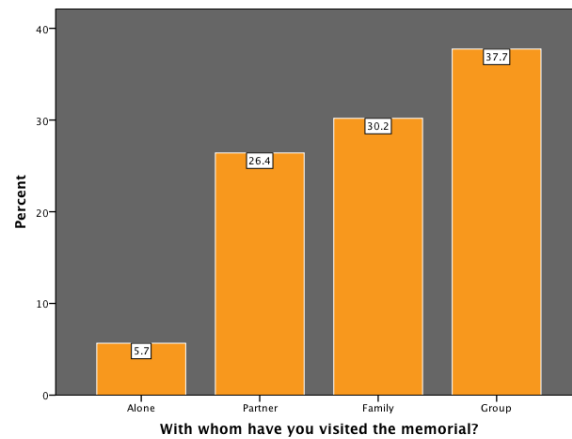
### •JFKM

The majority of respondents visiting this memorial came with either a partner or family; each of these groups accounted for 38.7% of the memorial sample. Respondents in groups made up 19.4% and individuals 3.2% (see Graph 5.24).

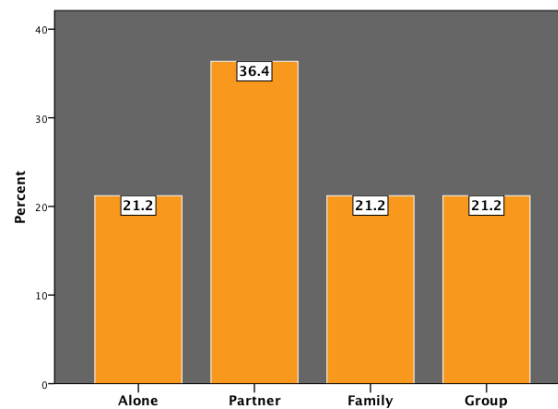
## Placing a tribute

### •PDMF

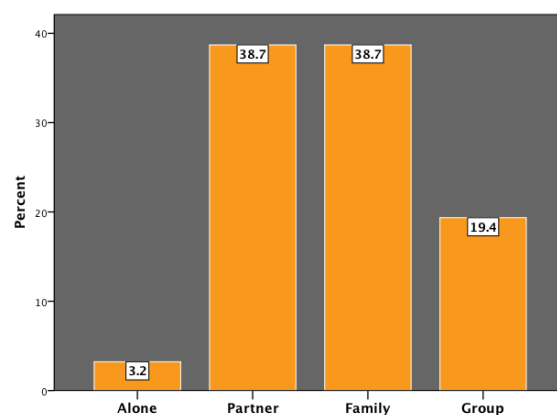
In response to a question about whether they had (or would like to have) placed a tribute at the memorial, 83.3% of the PDMF sample said they had placed no tribute (or did not want to). Prayers or spoken words constituted 5.6%. People who laid flowers (or would have liked to) made up 2.8% of the respondents. 8.3% of the sample preferred to place other tributes<sup>39</sup> (see Graph 5.25).



Graph 5.19: PDMF respondents' company during the memorial visit



Graph 5.20: 7JM respondents' company during the memorial visit



Graph 5.21: JFKM respondents' company during the memorial visit

<sup>39</sup> More details of the other types of tributes respondents would like to give are explained in the results of the data from the qualitative part of the users' questionnaire in Section 5.2.2.

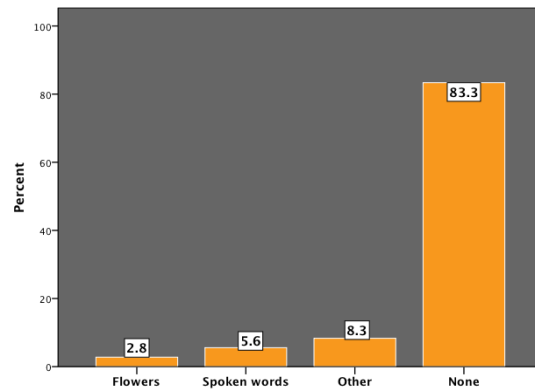
•7JM

The percentage of respondents who did not place a tribute (or did not want to) at 7JM is higher than that of those who preferred to give prayers/spoken words or place other tributes. Respondents who did not want to place any tribute made up 73.5% of the total sample, while those who preferred to give prayers/spoken words and those who would place other tributes made up 11.8% and 14.7% respectively (see Graph 5.26).

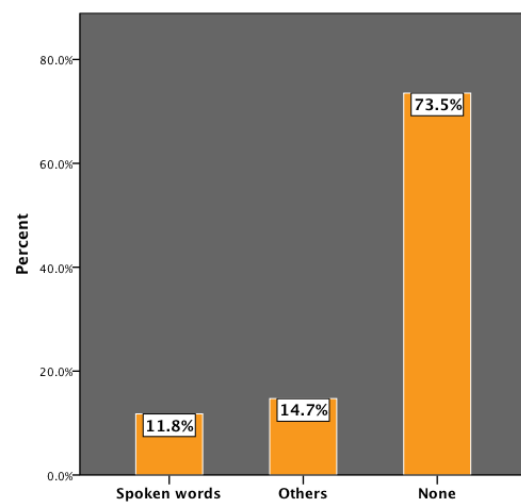
•JFKM

At this memorial, 87.1% of the respondents had no desire to leave any tribute at the memorial site. Those who preferred prayers/spoken words made up only 6.5%, while respondents who would have liked to leave tributes other than those listed in the questionnaire also constituted 6.5% (see Graph 5.27).

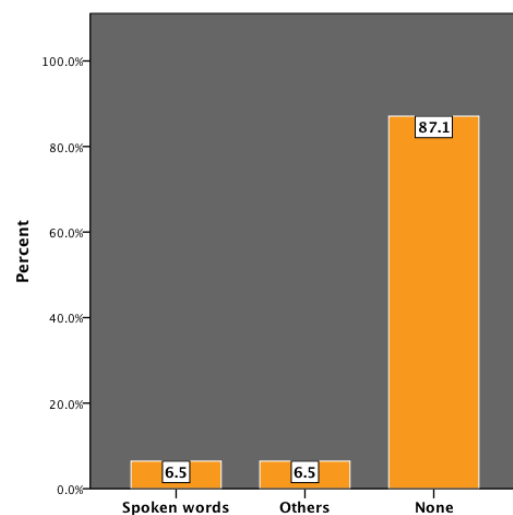
5.2.1.1.2. Environmental supportiveness based on personal projects and memorial communicational values (SPPCV)



Graph 5.22: PDMF respondents' tribute



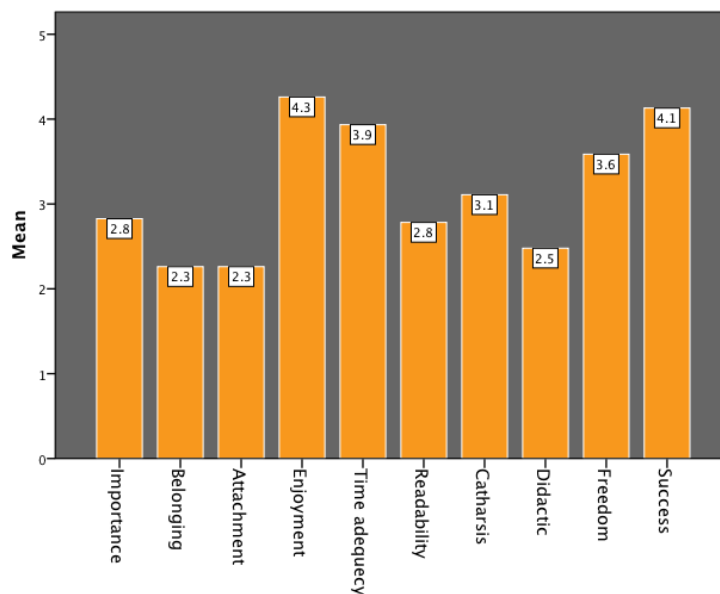
Graph 5.23: 7JM respondents' tribute



Graph 5.24: JFKM respondents' tribute

Variables relating to environmental supportiveness of personal projects and memorial values constituted the main core of the users' questionnaire.<sup>40</sup> These are a set of evaluation measures based on internal human representation or personal cultural background and past experience<sup>41</sup> (the measures are importance, belonging, attachment, enjoyment, time adequacy, freedom and success), along with a few aspects relating to memorial values which are considered to be of importance in memorial design<sup>42</sup> (didacticism, catharsis and readability).

•PDMF



Graph 5.25: PDMF supportiveness of personal projects and memorial communicational values (SPPCV)

<sup>40</sup> More details of the theory of personal projects dimensions are explained in Chapter Three.

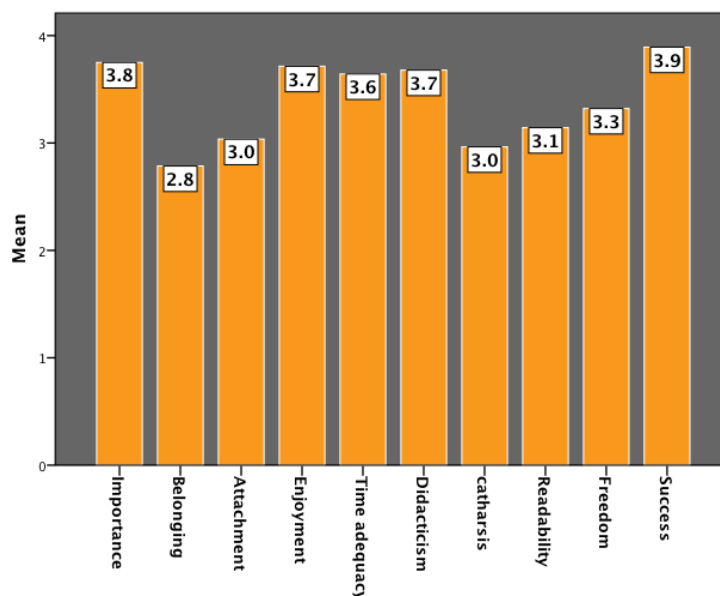
<sup>41</sup> See theoretical framework section in Chapter Three for more information about the 'Distributed Cognition' theory.

<sup>42</sup> These aspects were widely discussed in literature, in relation to memorial functionality.

Overall, most SPPCV variables received a high score, with values higher than 2.3. The variables of *enjoyment* and *success* were scored most highly, with mean values of 4.3 and 4.1 respectively. The variable of *freedom* received a score mean of 3.6. Dimensions relating to *didacticism*, *catharsis*, *readability*, *attachment*, *belonging* and *importance* were scored with mean values of 2.5, 3.1, 2.8, 2.3, 2.3 and 2.8 respectively. The mean value of the *time adequacy* variable score was 3.9, which is related to the 'length of the visit' second question in the questionnaire (see Graph 5.28). *Success* and *enjoyment* are considered the dependent variables for measuring the success of the overall visit experience. However, the meanings of *enjoyment* were perceived and understood differently by the respondents.<sup>43</sup>

#### •7JM

These results show that the *success* dependent variable scored a mean value of 3.9, and *enjoyment* 3.7, the same as *didacticism*. The dimension of *importance* scored 3.8, while those of *belonging*, *attachment*, *time adequacy*, *catharsis*, *readability* and *freedom* scored 2.8, 3, 3.6, 3, 3.1 and 3.3 respectively (see Graph 5.29).

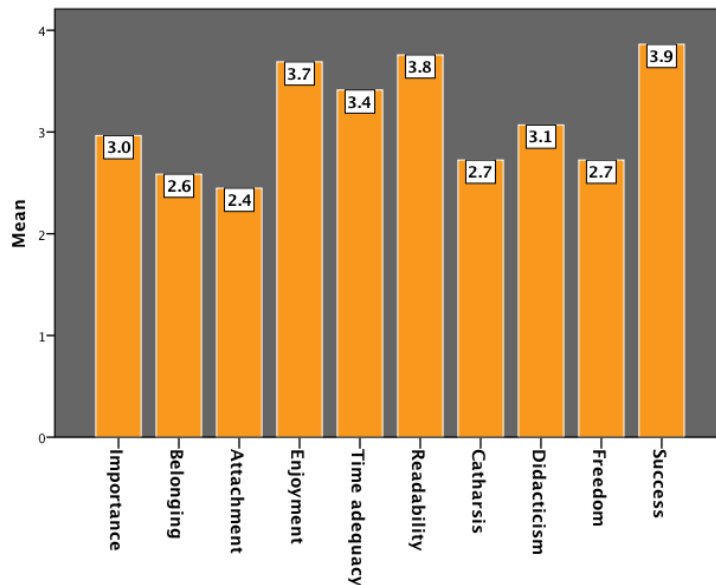


Graph 5.26: 7JM supportiveness of personal projects and memorial communicational values (SPPCV)

<sup>43</sup> This is examined in more detail in the results of the qualitative data from the questionnaire in Section 5.2.2.

### •JFKM

The highest scored SPPCV among the ten variables were *success*, *readability* and *enjoyment* with mean values of 3.9, 3.8 and 3.7 respectively for this memorial sample. The mean value of *time adequacy* was 3.4, while the variables of *didacticism*, *importance*, *freedom*, *catharsis*, *belonging* and *attachment* had respective mean values of 3.1, 3, 2.7, 2.7, 2.6 and 2.4 (see Graph 5.30).



Graph 5.27: JFKM supportiveness of personal projects and memorial communicational values (SPPCV)

#### 5.2.1.1.3. Environmental supportiveness based on environmental attributes (SEA)

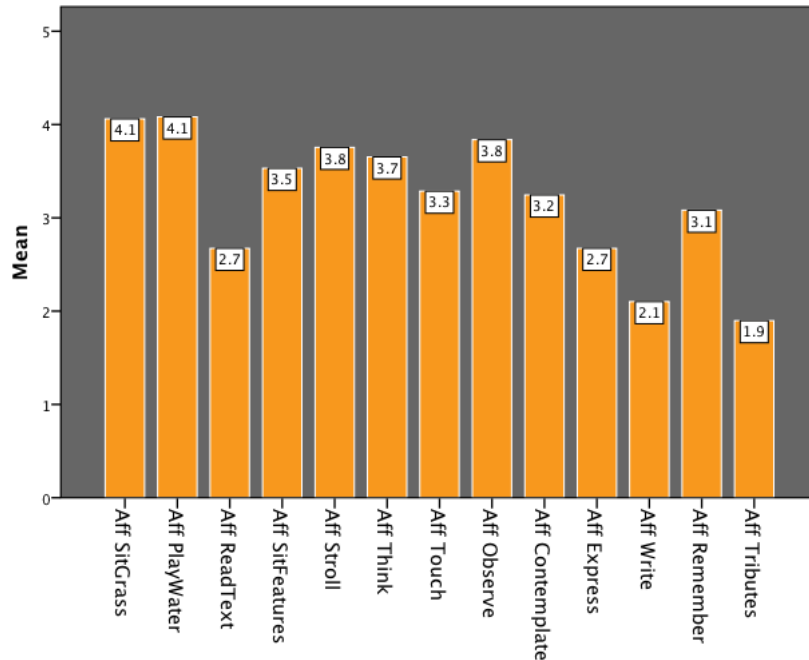
Environmental memorial attributes play a significant role in the engagement and interaction of users with memorial sites. The affordances of memorial are the perceived functionality of its physical attributes (design elements) and their significance in encouraging certain activities at memorial sites.<sup>44</sup> PDMF affordances listed in the questionnaire are: sitting on the grass, playing in the water, reading a plaque, sitting on memorial features, strolling, thinking, touching, observing, contemplating, expressing one's self, writing, remembering and placing tributes. These affordances will be measured by two methods:

- a) The users' questionnaire, which focused on the general survey of affordances or environmental supportiveness based on memorial attributes;

<sup>44</sup> This is derived from the definitions of affordances by Heft (2001) and Gibson (1979).

b) Environmental observation, where affordances were recorded in relation to 'behavioural settings' (memorial design elements).

•PDMF

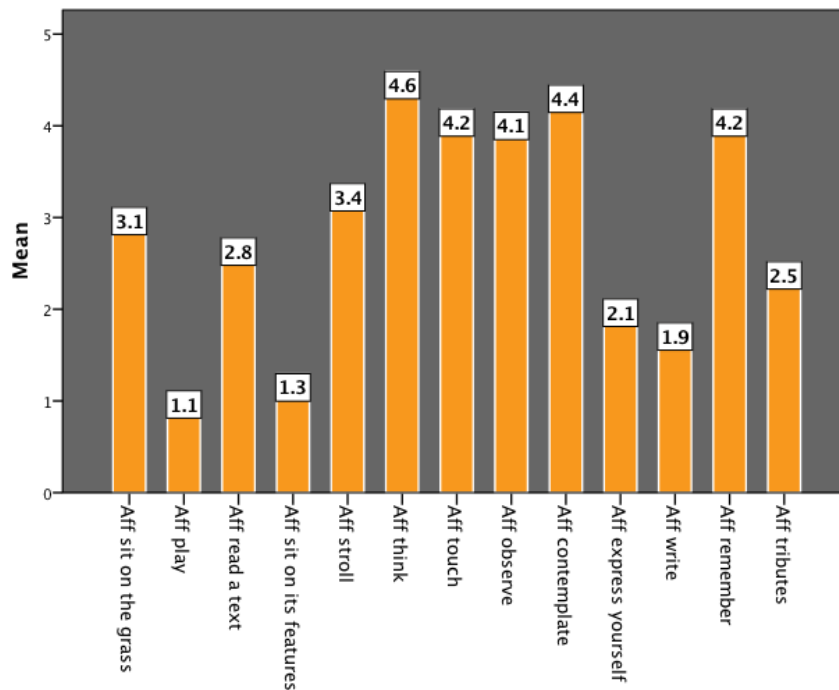


Graph 5.28: PDMF memorial affordances

Graph 5.28 represents the score means of the 13 memorial affordances. The highest scored were *playing with water* and *sitting on the grass*, both with score mean values of 4.1. Next came *observing* and *strolling*, which both had score mean values of 3.8. The affordances of *thinking*, *sitting on memorial features*, *touching memorial features*, *contemplating*, *remembering*, *reading*, *expressing one's self*, *writing* and *placing a tribute* received score mean values of 3.7, 3.5, 3.3, 3.2, 3.1, 2.7, 2.7, 2.1 and 1.9 respectively.

•7JM



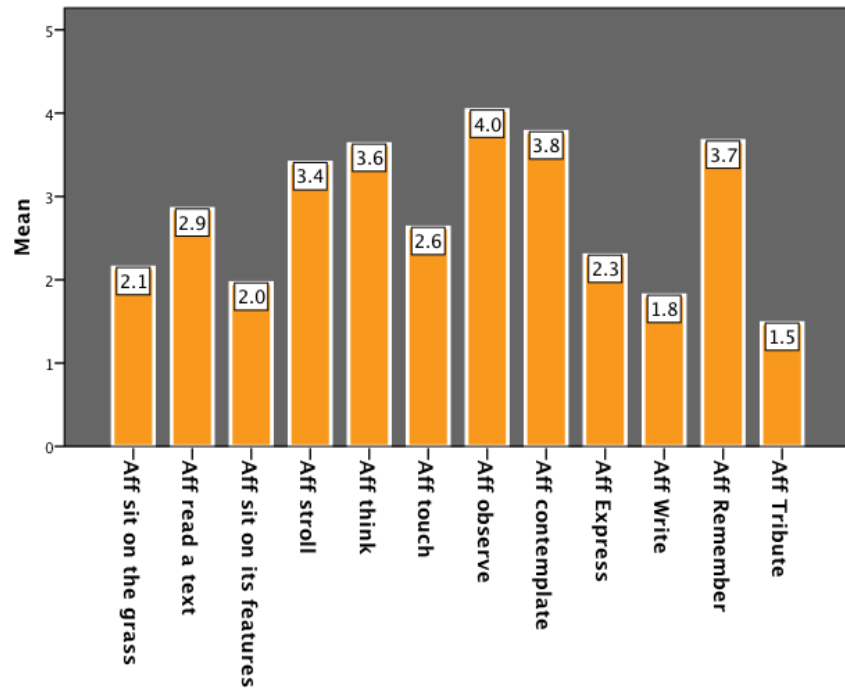


Graph 5.29: 7JM memorial affordances

The results of this memorial data analysis show that the highest scored affordance among the 13 was *thinking*, with a score mean value of 4.6 out of 5. The affordance of *contemplating* came second, with a score mean value of 4.4. Strongly related to *thinking* and *contemplating* is the affordance of *remembering*; its score mean value was 4.2, as was the case for *touching*. The score mean value of *observing* was 4.1. *Strolling* scored 3.4, *sitting on the grass* scored 3.1 and *reading a text*, *placing a tribute*, *expressing one's self*, *writing*, *sitting on memorial features* and *playing* had score mean values of 2.8, 2.5, 2.1, 1.9, 1.3 and 1.1 respectively (see Graph 5.29).

#### •JFKM

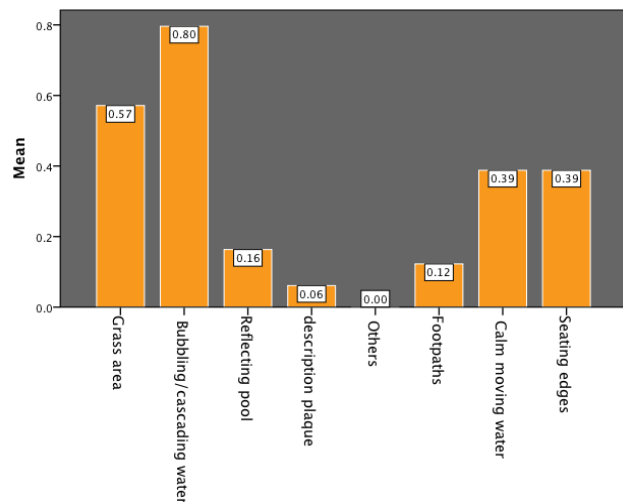
Graph 5.30 shows the results of the SEA, or the affordances of visitors to the JFKM memorial. The highest scored affordance was *observing* with a mean value of 4. *Contemplating* came second with 3.8, while *remembering* and *thinking* scored 3.7 and 3.6 respectively. The affordances that express emotion and thoughts are dominant in this memorial. Variables related to *reading*, *touching*, *expressing one's self*, *sitting on the grass*, *sitting on memorial features*, *writing* and *placing tribute* had score mean values of 2.9, 2.6, 2.3, 2.1, 2, 1.8 and 1.5 respectively (see Graph 5.33).



Graph 5.30: JFKM memorial affordances

### Memorial design preference

In this part of the questionnaire, respondents were asked to identify their most preferred memorial design elements, with the option to choose as many as they liked.



#### •PDMF

The distribution of the memorial design elements preference

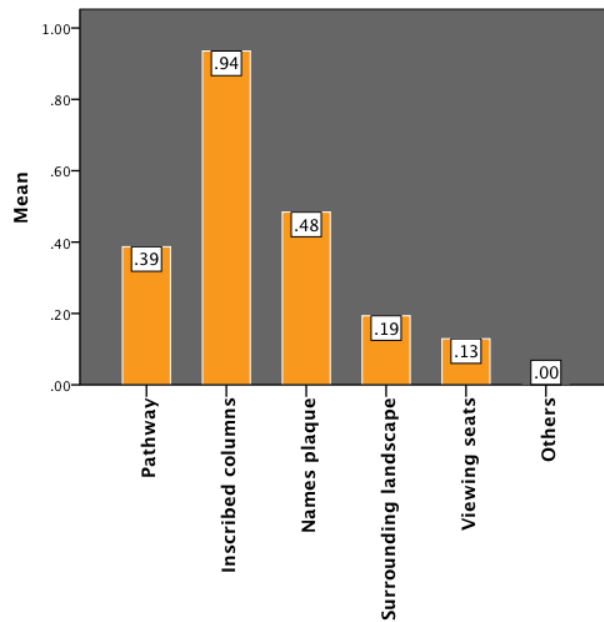
Graph 5.31: PDMF respondents' memorial design elements preference

shows that 80% of respondents preferred *bubbling and cascading water*. This particular design feature of the fountain is considered the main characteristic of the memorial. 57% of the respondents chose the *grass area* as their preferred memorial feature, while

39% preferred the *calm moving water* and the *fountain sitting edge*. The *description plaque* and *footpaths* were liked by 6% and 12% of respondents respectively (see Graph 5.34).

#### •7JM

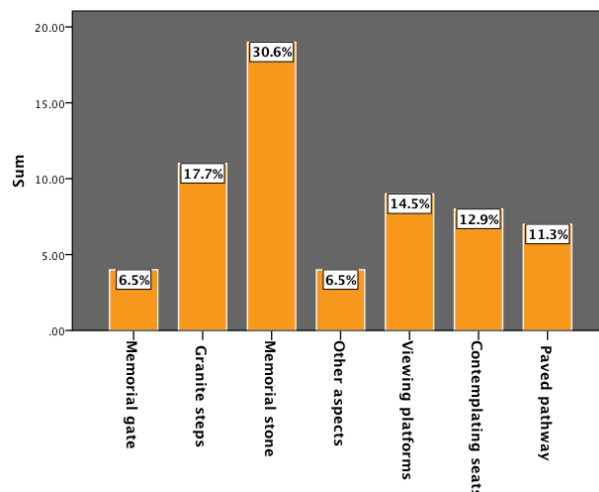
*Inscribed columns*, which are considered the main feature of the 7JM design, were preferred by 94% of the respondents, while the *names plaque* was chosen by 48% of the respondents. *Pathway* was chosen by 39%, *surrounding landscape* 19% and *viewing seats* 13% (see Graph 5.35).



Graph 5.32: 7JM respondents' memorial design elements preference

#### •JFKM

In this memorial design, the most preferred element by users was the *memorial stone*, which represents the 'body' in Geoffrey Jellicoe's design concept. It was preferred by 30.6% of the respondents, while the *granite steps*, *viewing platforms*, *contemplating seats*, *paved pathway*



Graph 5.33: JFKM respondents' memorial design elements preference

and *memorial gate* were preferred by 17.7%, 14.5%, 12.9%, 11.3% and 6.5% of respondents respectively (see Graph 5.36).

#### 5.2.1.2. Principal component analysis (PCA) using SPSS

##### 5.2.1.2.1. Introduction

In this study, the principal component analysis was undertaken in order to explore the data structure, by clustering variables into groups based on their correlation. PCA groups variables into components, and as such is a method of data reduction. It

achieves this by seeking underlying unobservable (latent) variables that are reflected in the observed variables (manifest variables). This analysis, which will be presented here, was carried out on the variables set of SPPCV and SEA collated from the users' questionnaires for the three case studies, in order to categorise them into a set of memorial design goals that could be translated into physical manifestations and influence the memorial design decision.

To run the principal component analysis (PCA), extraction and rotation methods should be specified. For the extraction method, the default for SPSS is to use the Kaiser stopping criterion with eigenvalue=1 in order to decide how many factors to extract. For the rotation method, the default value 'Varimax' is used. For the coefficient display format, a 'suppress small coefficient' value of 0.4 was chosen for this analysis.

#### 5.2.1.2.2. PCA of SPPCV

##### •PDMF

Table 5.1 shows the results of PCA of PDMF, with eigenvalue=1 and suppress small coefficient value=0.4. The result of three components explained 69.7% of the variance. In SPPCV, 10 variables were reduced to three components.

The first component, titled *Attachment*, comprises four variables:

- **Importance:** Question: How important is this memorial to you? (Component loading= 0.567).
- **Attachment:** Question: How much do you feel emotionally attached to this memorial? (Component loading= 0.837).
- **Belonging:** Question: How much do you feel you belong to this memorial place? (Component loading= 0.878).
- **Freedom:** Question: How much does this memorial provide you with the freedom to do whatever you like? (Component loading= 0.783).

Table 5.1: Principal component analysis of SPPCV of PDMF

**Rotated Component Matrix<sup>a</sup>**

SPPCV Variables	Component		
	Attachment	Communication	Satisfaction
Belonging	.878		
Attachment	.837		
Freedom	.783		
Importance	.567		
Didactic		.881	
Readability		.706	
Cathartic		.627	
Success			.860
Enjoyment			.766

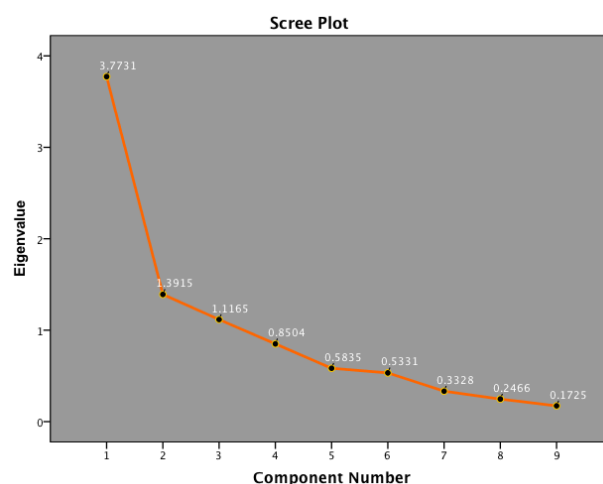
Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalisation

a. Rotation converged in 4 iterations

From SPPCV, three variables were reduced to a second component titled *Communication*, which are:

- **Didacticism:** Question: How much have you learnt from the memorial? (Component loading= 0.881)
- **Catharsis:** Question: How much does the memorial comfort you? (Component loading= 0.627)



Graph 5.34: Scree plot of PCA of SPPCV of PDMF

- **Readability:** Question: How much do you understand the meanings and the symbols of the memorial? (Component loading= 0.706)

This component highlights three additional dimensions added to the personal projects analysis PPA by this researcher that are related to memorial communicational values.

The third component was titled *Satisfaction*. It comprises two SPPCV variables:

- **Success:** Question: How successful was your overall memorial visit? (Component loading 0.86)

Table 5.2: Principal component analysis of SPPCV of 7JM

**Rotated Component Matrix<sup>a</sup>**

SPPCV Variables	Component		
	Communication & Satisfaction	Attachment	Freedom
Enjoyment	.841		
Readability	.726		
Catharsis	.523		
Didacticism	.723		
Success	.816		
Importance	.476	.560	
Belonging		.872	
Attachment		.828	
Freedom			-.827

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalisation

a. Rotation converged in 5 iterations

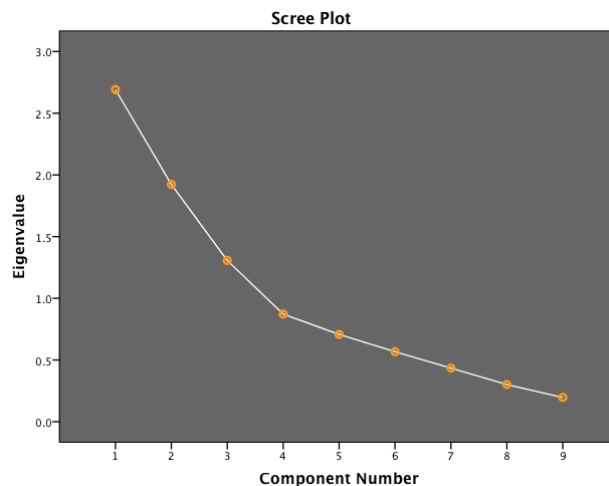
- **Enjoyment:** Question: How much do you enjoy this memorial? (Component loading 0.766)

For this memorial, the factor of *enjoyment* was grouped with *success*. It stresses the importance of the dimension of playfulness and enjoyment this design aims to hold.

#### •7JM

The results of PCA presented in Table 5.2 show that the SPPCV 10 variables were reduced to two components. The first component comprises five variables under a generic variable of *Communication & Satisfaction*:

- **Enjoyment:** Question: How much do you enjoy this memorial? (Component loading 0.841)
- **Success:** Question: How successful was your overall memorial visit? (Component loading 0.816)
- **Didacticism:** Question: How much have you learnt from the memorial? (Component loading= 0.723)
- **Catharsis:** Question: How much does the memorial comfort you? (Component loading= 0.523)
- **Readability:** Question: How much do you understand the meanings and the symbols of the memorial? (Component loading= 0.726)



Graph 5.35: Scree plot of PCA of SPPCV of 7JM

The second component includes three variables:

- **Importance:** Question: How important is this memorial to you? (Component loading= 0.560).
- **Attachment:** Question: How much do you feel emotionally attached to this memorial? (Component loading= 0.828).
- **Belonging:** Question: How much do you feel you belong to this memorial place? (Component loading= 0.872).

Finally, the third component includes only the variable *freedom*:

- **Freedom:** Question: How much does this memorial provide you with the freedom to do whatever you like? (Component loading= -0.827).

For this memorial, the variable *freedom* is not grouped with and does not correlate to any other variable in the SPPCV set.

Table 5.3: Principal component analysis of SPPCV of JFKM

**Rotated Component Matrix<sup>a</sup>**

SPPCV Variables	Component	
	Attachment & Satisfaction	Communication
Importance	.771	
Belonging	.851	
Attachment	.708	
Freedom	.763	
Success	.480	.476
Enjoyment		.865
Readability	.552	.661
Catharsis		.863
Didacticism		.828

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalisation

a. Rotation converged in 3 iterations

•*JFKM*

The PCA analysis teased out two components. The two components in total explain 69.5% of the variance (see Table 5.3).

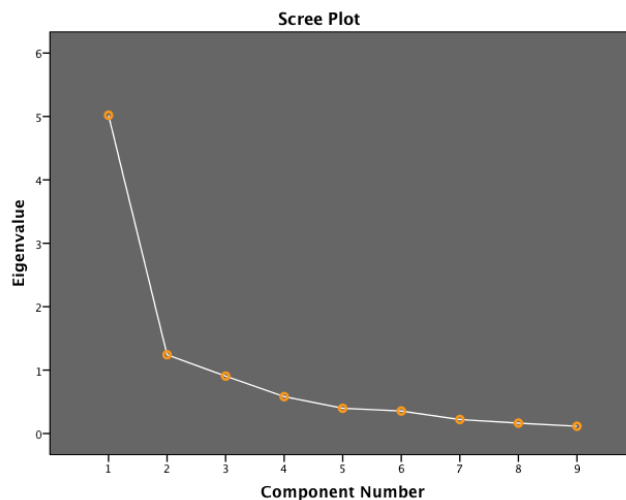
The first component comprises five SPPCV variables, including the dependent variable *success*:



- **Importance:** Question: How important is this memorial to you? (Component loading= 0.708).
- **Attachment:** Question: How much do you feel emotionally attached to this memorial? (Component loading= 0.828).
- **Belonging:** Question: How much do you feel you belong to this memorial place? (Component loading= 0.851).
- **Freedom:** Question: How much does this memorial provide you with the freedom to do whatever you like? (Component loading= 0.763).

The other memorial communicational value variables, in addition to the variable *enjoyment*, formulate the second component:

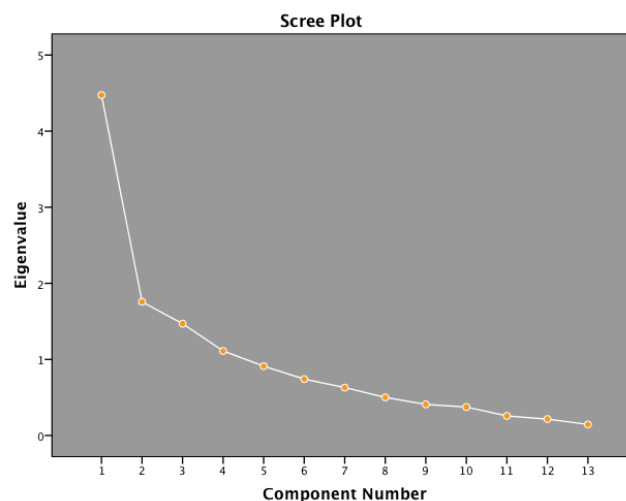
- **Didacticism:** Question: How much have you learnt from the memorial? (Component loading= 0.828)



Graph 5.36: Scree plot of PCA of SPPCV of JFKM

- **Catharsis:** Question: How much does the memorial comfort you? (Component loading= 0.863)
- **Readability:** Question: How much do you understand the meanings and the symbols of the memorial? (Component loading= 0.661)

- **Enjoyment:** Question: How much do you enjoy this memorial? (Component loading= 0.865)



Graph 5.37: Scree plot of PCA of SEA of PDMF

#### 5.2.1.2.3. PCA of SEA

##### •PDMF

After running the factor analysis on the SEA of the PDMF memorial, its 13 variables were reduced to three components, which explained 67.7% of the total variance (Table 5.4). The first component, titled *Reflection & Contemplation*, comprises five variables as follows:

- **Aff Contemplate:** Question: Score on five-point scale how much the memorial encourages you to contemplate. (Component loading= 0.786)
- **Aff Think:** Question: Score on five-point scale how much the memorial encourages you to think. (Component loading= 0.778)
- **Aff Remember:** Question: Score on five-point scale how much the memorial encourages you to remember. (Component loading= 0.705)
- **Aff Observe:** Question: Score on five-point scale how much the memorial encourages you to observe. (Component loading= 0.675)
- **Aff Stroll:** Question: Score on five-point scale how much the memorial encourages you to stroll. (Component loading= 0.584)

The second component, with the title *Self-Expression*, includes four variables:

- **Aff Tribute:** Question: Score on five-point scale how much the memorial encourages you to place a tribute. (Component loading= 0.584)
- **Aff Express:** Question: Score on five-point scale how much the memorial encourages you to express yourself. (Component loading= 0.731)
- **Aff Write:** Question: Score on five-point scale how much the memorial encourages you to write. (Component loading= 0.679)
- **Aff Read:** Question: Score on five-point scale how much the memorial encourages you to read. (Component loading= 0.572)

The third component is titled *Interaction*, and comprises three SEA variables:

- **Aff SitFeatures:** Question: Score on five-point scale how much the memorial encourages you to sit on its features. (Component loading= 0.837)

- **Aff PlayWater:** Question: Score on five-point scale how much the memorial encourages you to play in the water. (Component loading= 0.698)

Table 5.4: Principal component analysis of SEA of PDMF

**Rotated Component Matrix<sup>a</sup>**

SEA Variables	Component			
	Reflection & Contemplation	Exploration Self-Expression	Interaction	Picnic Social activities
<b>Aff Contemplate</b>	.786			
<b>Aff Think</b>	.778			
<b>Aff Remember</b>	.705	.541		
<b>Aff Observe</b>	.675			
<b>Aff Stroll</b>	.584		.482	
Aff Tributes		.800		
Aff Express		.731		
Aff Write		.679		
Aff ReadText		.572		
<b>Aff SitFeatures</b>			.837	
<b>Aff PlayWater</b>			.698	.501
<b>Aff Touch</b>			.689	
<b>Aff SitGrass</b>				.898

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalisation

a. Rotation converged in 5 iterations

- **Aff Touch:** Question: Score on five-point scale how much the memorial encourages you to touch its features. (Component loading= 0.689)

The fourth component includes only one affordance:

- **Aff SitGrass:** Question: Score on five-point scale how much the memorial encourages you to sit on the grass. (Component loading= 0.898)

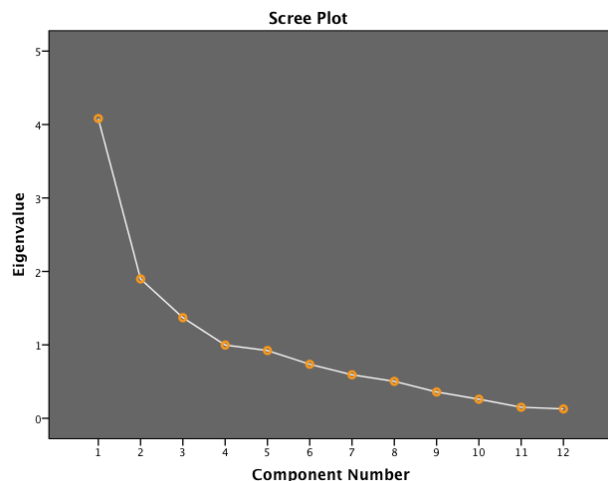
•7JM

The PCA teased out three component titles: *Interaction*, *Reflection & Expression* and *Contemplation*, which included 12 SEA variables out of 13 and explained 61.2% of the variance (see Table 5.5). The first factor, *Interaction*, includes five variables as follows:

- **Aff Read:** Question: Score on five-point scale how much the memorial encourages you to read. (Component loading= 0.748)
- **Aff Stroll:** Question: Score on five-point scale how much the memorial encourages you to stroll. (Component loading= 0.793)
- **Aff Express:** Question: Score on five-point scale how much the memorial encourages you to express yourself. (Component loading= 0.488)
- **Aff Write:** Question: Score on five-point scale how much the memorial encourages you to write. (Component loading= 0.676)
- **Aff Tributes:** Question: Score on five-point scale how much the memorial encourages you to place a tribute. (Component loading= 0.878)

The second component, *Reflection & Expression*, comprises four variables:

- **Aff SitGrass:** Question: Score on five-point scale how much the memorial encourages you to sit on the grass. (Component loading= 0.795)
- **Aff Think:** Question: Score on five-point scale how much the memorial encourages you to think. (Component loading= 0.639)



Graph 5.38: Scree plot of PCA of SEA of 7JM

- **Aff Touch:** Question: Score on five-point scale how much the memorial encourages you to touch its features. (Component loading= 0.649)
- **Aff Observe:** Question: Score on five-point scale how much the memorial encourages you to observe. (Component loading= 0.768)

Table 5.5: Principal component analysis of SEA of 7JM

**Rotated Component Matrix<sup>a</sup>**

SEA Variables	Component		
	Exploration Self- Expression	Interaction Reflection	Contemplation
<b>Aff ReadText</b>	.748		
<b>Aff Stroll</b>	.793		
<b>Aff Express</b>	.488		
<b>Aff Write</b>	.676		
<b>Aff Tributes</b>	.878		
<b>Aff SitGrass</b>		.795	
<b>Aff Think</b>		.639	
<b>Aff Touch</b>		.649	
<b>Aff Observe</b>		.768	
<b>Aff Remember</b>			.479
<b>Aff Contemplate</b>			.865

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalisation

a. Rotation converged in 6 iterations

The third component, *Contemplation*, comprises two variables:

- **Aff Contemplate:** Question: Score on five-point scale how much the memorial encourages you to contemplate. (Component loading= 0.865)
- **Aff Remember:** Question: Score on five-point scale how much the memorial encourages you to remember. (Component loading= 0.589).

•JFKM

Table 5.6: Principal component analysis of SEA of JFKM

**Rotated Component Matrix<sup>a</sup>**

SEA Variables	Component		
	Exploration Self-Expression	Interaction	Reflection & Contemplation
Aff ReadText	.868		
Aff Stroll	.871		
Aff Touch	.567		
Aff Observe	.752		
Aff Express	.533	.527	.517
Aff SitGrass		.849	
Aff SitFeatures		.485	
Aff Write		.768	
Aff Tribute		.822	
Aff Think			.910
Aff Contemplate			.819
Aff Remember			.928

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalisation

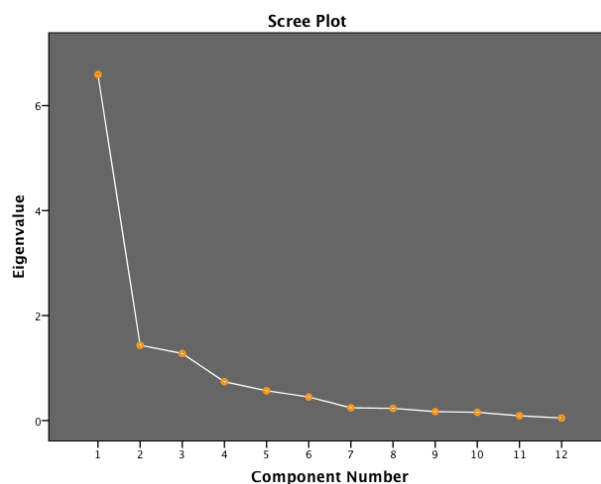
a. Rotation converged in 4 iterations

After running PCA, the 13 variables of SEA were reduced to three components: *Self-Expression*, *Interaction* and *Reflection*, which explained 77.5% of the variance (see Table 5.6). The first component, *Self-Expression*, represents five variables:

- **Aff Read:** Question: Score on five-point scale how much the memorial encourages you to read. (Component loading= 0.868)
- **Aff Stroll:** Question: Score on five-point scale how much the memorial encourages you to stroll. (Component loading= 0.871)
- **Aff Observe:** Question: Score on five-point scale how much the memorial encourages you to observe. (Component loading= 0.752)
- **Aff Touch:** Question: Score on five-point scale how much the memorial encourages you to touch its features. (Component loading= 0.567)
- **Aff Express:** Question: Score on five-point scale how much the memorial encourages you to express yourself. (Component loading= 0.533)

Four SEA variables are grouped into the component *Interaction*:

- **Aff SitGrass:** Question: Score on five-point scale how much the memorial encourages you to sit on the grass. (Component loading= 0.849)
- **Aff SitFeatures:** Question: Score on five-point scale how much the memorial encourages you to sit on its features. (Component loading= 0.485)
- **Aff Write:** Question: Score on five-point scale how much the memorial encourages you to write. (Component loading= 0.768).
- **Aff Tributes:** Question: Score on five-point scale how much the memorial encourages you to place a tribute. (Component loading= 0.822)



Graph 5.39: Scree plot of PCA of SEA of JFKM

#### 5.2.1.2.4. Key findings

The results of PCA for both the SPPCV and SEA of the three case studies showed some commonalities and differences between them:

- At the three memorials, respondents strongly linked the *importance* of the memorial with the sense of *belonging* and the emotional *attachment*. The more they felt emotionally attached and that they belonged to the place, the more important it was to them.
- The three communicational dimensions of the memorial (*didacticism*, *catharsis* and *readability* values) correlate to each other at all three memorials. The more readable and informative the memorial design, the more emotionally comfortable and cathartic for the visitors. For 7JM, the *success* of visitors' visits relates to both the didactic and cathartic qualities of the memorial design. This result contradicts the theory of McKim (2008) in his article about Ground Zero, i.e. that its design weakness resulted from its tendency to satisfy both the cathartic and didactic design dimensions presented by Badiou's presentation of art schemata (2005).
- At PDMF and JFKM, the sense of *freedom* added more value to the *importance* of the memorial. This was proven by the design's ability to offer a space for strolling, playing and interaction. At 7JM, meanwhile, *freedom* did not correlate to any of the SPPCV dimensions. This researcher believes this is due to the formality and conservation of the memorial, which meant that *freedom* was not accepted within the memorial context.
- The *enjoyment* of the visitors at 7JM and JFKM was strongly based on the memorial's *readability*, *information provision* and *catharsis*. At PDMF, meanwhile, *enjoyment* highly contributed to the memorial design's success in the visitors' opinion.
- At 7JM, respondents felt that the *success* of their visits was based on whether the meanings and symbols of the design were readable, and the level of emotional comfort of the design. At JFKM, however, the *success* of respondents' visits was based on how much the memorial meant and belonged to them collectively and personally.
- At PDMF, *strolling* and *observing* the memorial and other people on site increased respondents' levels of *contemplation*, *remembrance* and *reflection*, while at 7JM and JFKM, *contemplating* was linked to *remembering* and *thinking* of the memorial



tragedy and victims. This is due to the memorial didactic function. The design forms of these two memorials, with the columns and description plaque at 7JM and the gate description plaque and memorial stone at JFKM, inform visitors of the memorial subject and encourage them to remember the two events.

- At all three memorials, the affordance of *reading* the memorial description plaque increased respondents' level of self-expression. At PDMF and 7JM, self-expression also correlated to *writing* and *paying tribute*. At 7JM and JFKM, the affordance of *strolling* has a positive impact on self-expression at the sites. At 7JM, the affordance of *touching* memorial features is part of the *thinking* and *reflection* process, while at PDMF and JFKM it enhances physical interaction and engagement with memorial features.

#### 5.2.1.3. Predictions

##### 5.2.1.3.1. Predictors of success and catharsis of memorial design

Before running regression analysis to identify correlation between dependent and independent variables in the data, testing distributions for normality should be carried out. Tables 5.7, 5.8 and 5.9 show that the dependent variable

#### Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
- Success	.801	51	.000
- Catharsis	.874	51	.000

a. Lilliefors Significance Correction

Table 5.7: Test of Normality table for variables of *Success* and *Catharsis* of PDMF

#### Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
- Success	.841	33	.000
- Catharsis	.884	33	.002

a. Lilliefors Significance Correction

Table 5.8: Test of Normality table for variables of *Success* and *Catharsis* of 7JM

#### Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Sig.
- Success	.833	30	.000
- Catharsis	.879	30	.003

a. Lilliefors Significance Correction

Table 5.9: Test of Normality table for variables of *Success* and *Catharsis* of JFKM

Table 5.10: Coefficient correlations matrix of visitors' *Success* from PDMF

			<b>Success</b>
Spearman's rho	Importance	Correlation Coefficient	.278*
		Sig. (2-tailed)	.046
		N	52
	Enjoyment	Correlation Coefficient	.320*
		Sig. (2-tailed)	.021
		N	52
	Aff Stroll	Correlation Coefficient	.367**
		Sig. (2-tailed)	.009
		N	50
	Aff Observe	Correlation Coefficient	.288*
		Sig. (2-tailed)	.042
		N	50
	Aff Contemplate	Correlation Coefficient	.344*
		Sig. (2-tailed)	.014
		N	50
	Aff Express	Correlation Coefficient	-.062
		Sig. (2-tailed)	.671
		N	50
	Aff Remember	Correlation Coefficient	.210
		Sig. (2-tailed)	.139
		N	51
	LIKE reflecting pool	Correlation Coefficient	.323*
		Sig. (2-tailed)	.021
		N	51
	LIKE description plaque	Correlation Coefficient	.284*
		Sig. (2-tailed)	.043
		N	51

*Success* is not normally distributed in PDMF, 7JM and JFKM (Shapiro-Wilk:

$p=0.00<0.05$ ) and neither is *Catharsis* (Shapiro-Wilk:  $p=0.00<0.05$  for PDMF,  $p=0.002$

Table 5.11: Coefficient correlations matrix of Success and Catharsis predictors from 7JM

			Success
Spearman's rho	Enjoyment	Correlation Coefficient	.699**
		Sig. (2-tailed)	.000
		N	31
	Readability	Correlation Coefficient	.419 <sup>+</sup>
		Sig. (2-tailed)	.017
		N	32
	Didacticism	Correlation Coefficient	.465**
		Sig. (2-tailed)	.008
		N	31
	Aff Sit Grass	Correlation Coefficient	.368 <sup>+</sup>
		Sig. (2-tailed)	.041
		N	31
	Aff Think	Correlation Coefficient	.366 <sup>+</sup>
		Sig. (2-tailed)	.043
		N	31
	Aff Touch	Correlation Coefficient	.389 <sup>+</sup>
		Sig. (2-tailed)	.028
		N	32
	Aff Contemplate	Correlation Coefficient	.399 <sup>+</sup>
		Sig. (2-tailed)	.024
		N	32
	LIKE pathway	Correlation Coefficient	.358 <sup>+</sup>
		Sig. (2-tailed)	.048
		N	31
	LIKE landscape	Correlation Coefficient	.383 <sup>+</sup>
		Sig. (2-tailed)	.033
		N	31

for 7JM and  $p=0.003$  for JFKM). As a result of this, exploratory binary regression analysis was run in order to explore the relationship between the *success* of visitors' memorial visits/*catharsis* of memorial design from users' point of view and the SPPCV, SEA and Preferences variables (see appendix). Because the sample size of the three case studies was too small to achieve valid regression analysis results (PDMF:  $n=53$ , 7JM:  $n=32$ , JFKM:  $n=30$ ), a Spearman rho test of correlations was conducted in order to explore the predictions between dependent and independent variables.

#### •PDMF

Table 5.10 presents the results of correlations between the dependent variable of *Success* and the independent SPPCV, SEA, Preference and demographic variables. PDMF.

The *Success* of memorial visits significantly correlates to *Importance* ( $p=0.046$ ) and *Enjoyment* ( $p=0.21$ ) from the SPPCV variables. In the SEA set of variables, the affordances of *strolling* ( $p=0.009$ ), *observing* ( $p=0.042$ ) and *contemplating* ( $p=0.014$ ) play significant roles in the success of the user's memorial visit. In terms of the visitors' design elements preferences, *success* strongly correlates to the *reflecting pool* ( $p=0.021$ ) and memorial *description plaque* ( $p=0.043$ ) that describes Princess Diana's life and the memorial design concept.

#### •7JM

The correlations between *Success* and SPPCV, SEA and Preferences based on a p-value of significance are presented in Table 5.11.

*Success* correlates highly to *Enjoyment* ( $p=0.000$ ), *Readability* ( $p=0.017$ ) and *Didacticism* ( $p=0.008$ ) from SPPCV variables, while in the affordances section of SEA, it strongly correlates to *sitting on the grass*, *touching*, *thinking* and *contemplating*, with p-values of 0.041, 0.043, 0.028 and 0.024 respectively. Preferences of *pathway* and *surrounding landscape* significantly predict the overall visitors' appreciation of the memorial design, with p-values of 0.048 and 0.033.

#### •JFKM

After conducting correlation analysis between dependent and independent variables, as presented in Table 5.12, the result was as follows:

Table 5.12: Coefficient correlations matrix of success and catharsis predictors from JFKM

			Success
Spearman's rho	Catharsis	Correlation Coefficient	.415 <sup>+</sup>
		Sig. (2-tailed)	.023
		N	30
	Belonging	Correlation Coefficient	.458 <sup>+</sup>
		Sig. (2-tailed)	.011
		N	30
	Readability	Correlation Coefficient	.389 <sup>+</sup>
		Sig. (2-tailed)	.034
		N	30
	Didacticism	Correlation Coefficient	.577 <sup>**</sup>
		Sig. (2-tailed)	.001
		N	29
	Freedom	Correlation Coefficient	.531 <sup>**</sup>
		Sig. (2-tailed)	.003
		N	30
	Aff Stroll	Correlation Coefficient	.427 <sup>+</sup>
		Sig. (2-tailed)	.021
		N	29
	Aff Think	Correlation Coefficient	.444 <sup>+</sup>
		Sig. (2-tailed)	.016
		N	29
	Aff Touch	Correlation Coefficient	.493 <sup>**</sup>
		Sig. (2-tailed)	.008
		N	28
	Aff Observe	Correlation Coefficient	.376 <sup>+</sup>
		Sig. (2-tailed)	.044
		N	29
	Aff Contemplate	Correlation Coefficient	.376 <sup>+</sup>
		Sig. (2-tailed)	.044
		N	29
	Aff Express	Correlation Coefficient	.446 <sup>+</sup>
		Sig. (2-tailed)	.017
		N	28

*Success* strongly correlates to *catharsis* ( $p=0.023$ ), *belonging* ( $p=0.011$ ), *readability* ( $p=0.034$ ), *didacticism* ( $p=0.001$ ) and *freedom* ( $p=0.003$ ) from the SPPCV variables. From the affordances variables, *success* strongly correlates to *strolling*, *thinking*, *touching*, *observing*, *contemplating* and *self-expression* with  $p$ -values of 0.021, 0.016, 0.008, 0.044 and 0.017 respectively.

#### 5.2.1.3.2. Predictors of visitors' satisfaction from PCA components of SPPCV and SEA

After running PCA for SPPCV and SEA from the three case studies, the variables of new components were listed (see Table 5.13). The SPPCV *Satisfaction* variable will be the outcome variable from which other predictors will be explored. These analyses of predictors, on the level of both SPPCV and SEA variables and general PCA variables, allow for a thorough exploration of memorial visiting *success* and *satisfaction*.

In order to identify whether the regression analysis is valid, tests of normality were run for the *satisfaction* variable for the three case studies. As a result, matrices of binary correlation were conducted in order to explore the relationship between all variables.

Table 5.13: The new component variables of the three case studies

PDMF		7JM		JFKM	
SPPCV	SEA	SPPCV	SEA	SPPCV	SEA
Attachment	Reflection & Contemplation	Communication & Satisfaction	Interaction & Engagement	Attachment & Satisfaction	Engagement
Communication	Engagement	Attachment	Reflection	Communication	Interaction
Satisfaction	Interaction		Contemplation		Reflection & Contemplation
	Social & Picnic Activities				

•PDMF

Table 5.14 presents the correlated independent variables of SEA's PCA with the dependent variable of *Satisfaction* from SPPCV's PCA. It shows that *Satisfaction* highly correlates to *Reflection* ( $p=0.002$ ) and *Social & Picnic Activities* ( $p=0.013$ ).

Table 5.14: PDMF significant correlations between *Satisfaction* and SEA PCA variables**Coefficients<sup>a</sup>**

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-3.053E-16	.135		.000	1.000
<b>FAC1_AFF_Reflection</b>	.462	.137	.462	3.376	<b>.002</b>
(Constant)	-2.115E-16	.142		.000	1.000
<b>FAC4_AFF_Picnic</b>	.371	.143	.371	2.589	<b>.013</b>

a. Dependent Variable: FAC3\_PPD\_Satisfaction

Table 5.15: 7JM significant correlations between *Satisfaction* and SEA PCA variables**Coefficients<sup>a</sup>**

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	-.049	.186		-.262	.796
<b>SEAFAC3Contemplation</b>	.342	.192	.339	1.787	<b>.072</b>

a. Dependent Variable: PPAFAC1 Communication &amp; Satisfaction

Table 5.16: JFKM significant correlations between *Satisfaction* and SEA PCA variables**Coefficients<sup>a</sup>**

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	0.28	.177		.158	.876
<b>FAC1_AFF_Self-expression</b>	.360	.180	.353	1.997	<b>.050</b>

a. Dependent Variable: PPAFAC2 Communication &amp; Satisfaction

### •7JM

After running a correlation analysis between the PCA variables of 7JM, it transpires that the *Communication & Satisfaction* variable does not correlate to any of the SEA PCA variables. However, there is a weak correlation to *Contemplation*, with a p-value of 0.07.

### •JFKM

For JFKM, Table 5.16 shows significant correlation between the dependent variable of *Communication & Satisfaction* and the *Self-Expression* PCA variable ( $p=0.05$ ).

#### 5.2.1.3.3. Key findings

Correlations between the dependent variables *Success* and PCA component *Satisfaction*, and the independent variables of SPPCV and SEA, were explored on two different levels: the PCA components level and SPPCV and SEA variables level.

On a general PCA components level, *Satisfaction* highly correlates to *Reflection* and *Social & Picnic Activities* for PDMF, while there is a weak correlation to *Contemplation* for 7JM. For JFKM, *Satisfaction* correlates to *Self-Expression* and *Exploration*.

On the SPPCV and SEA variables level for PDMF, the *Success* of the memorial visit significantly correlates to *importance*, *enjoyment* and the affordances of *strolling*, *observing* and *contemplating*. In terms of visitors' design elements preferences, it correlates to the preference for the *reflecting pool* and the memorial's *description plaque*. For 7JM, *Success* correlates to *Enjoyment*, *Readability* and *Didacticism* from SPPCV, the affordances of *sitting on the grass*, *touching*, *thinking* and *contemplating* and the preferences of *pathway* and *surrounding landscape*. For JFKM, meanwhile, *Success* strongly correlates to *Catharsis*, *Belonging*, *Readability*, *Didacticism* and *Freedom* from the SPPCV variables. From the affordances variables, it significantly correlates to *strolling*, *thinking*, *touching*, *observing*, *contemplating* and *self-expression*.

#### 5.2.1.3.4. Variations based on demographic characteristics

This section describes how ANOVA was conducted in order to explore how demographic factors affect the different variables of SPPCV, SEA and visitors' preferences.

##### 5.2.1.3.4.1. Gender



The aim of this section is to explore whether gender differences relate to other dependent variables.

Table 5.17: Variations based on gender

Case studies	Factors	Variables	P Value	Trend
PDFM	SPPCV	<i>Enjoyment</i>	0.050	Female + Male -
		<i>Success</i>	0.015	Female + Male -
	SEA	<i>Playing with Water</i>	0.011	Female + Male -
	Preference	-	-	-
7JM	SPPCV	<i>Importance</i>	0.035	Female + Male -
	SEA	<i>Thinking</i>	0.028	Female + Male -
		<i>Remembering</i>	0.001	Female + Male -
		<i>Contemplating</i>	0.001	Female + Male -
	Preference	<i>Description Plaque</i>	0.001	Female + Male -
JFKM	SPPCV	<i>Importance</i>	0.013	Female + Male -
		<i>Attachment</i>	0.037	Female + Male -
		<i>Belonging</i>	0.020	Female + Male -
		<i>Catharsis</i>	0.016	Female + Male -
		<i>Readability</i>	0.013	Female + Male -
		<i>Freedom</i>	0.004	Female + Male -
	SEA	<i>Touching</i>	0.045	Female + Male -
		<i>Self-Expression</i>	0.007	Female + Male -

		<i>Writing</i>	0.027	Female + Male -
	Preference		-	-

At PDMF, female respondents are more likely to *enjoy* the memorial and have a *successful* experience than male respondents. In terms of SEA, female respondents are more likely to use the memorial site for *playing*, *strolling* and *remembering* than male respondents. At 7JM, meanwhile, the memorial is significantly more *important* to female respondents than males. In terms of SEA, female respondents are more likely to claim that the memorial is for *thinking*, *remembering* and *contemplating* than male respondents. For JFKM, the memorial is more *important*, *cathartic* and *readable* for female respondents than males, and females are more likely to have a sense of *belonging*, *attachment* and *freedom* than male respondents (see Table 5.17).

#### 5.2.1.3.4.2. Nationality

This section aims to examine how the nationality of respondents affects SPPCV and SEA variables.

Table 5.18: Variations based on nationality

Case studies	Factors	Variables	P Value	Trend
7JM	SPPCV	<i>Importance</i>	0.010	British+ Others-

For 7JM, the memorial is significantly more *important* for British respondents than those of other nationalities. For PDMF and JFKM, nationality does not affect any of the SPPCV and SEA variables (see Table 5.18).

#### 5.2.1.3.4.3. Company

This section will show whether companions in a memorial visit have any effects on the other variables in the SPPCV and SEA sections.

Table 5.19: Variations based on visiting groups (company)

Case studies	Factors	Variables	P Value	Trend
PDMF	SEA	<i>Playing with Water</i>	0.002	Group+ Alone-Family+ Alone-
		<i>Picnicking</i>	0.015	Group+ Alone-Family+ Alone-
7JM	SPPCV	<i>Attachment</i>	0.033	Partner+ Group-
		<i>Readability</i>	0.005	Alone+ Group-
JFKM	SPPCV	<i>Enjoyment</i>	0.039	Alone+ Family-
		<i>Catharsis</i>	0.038	Alone+ Family-
	SEA	<i>Observing</i>	0.026	Group+ Alone-
		<i>Contemplating</i>	0.054	Group+ Alone-

The ANOVA analysis presented in Table 5.19 shows that for PDMF, group and family respondents are more likely to claim that the site is for *playing with water* and *picnicking* than respondents who visit the memorial alone. For 7JM, couple respondents are more likely to be *attached* to the memorial than those who visit the site in groups, while memorial design is significantly more *readable* to individual respondents than groups. For individual respondents, visiting JFKM is more *enjoyable* and *cathartic* than it is for people visiting the memorial in groups; meanwhile, group respondents are more likely to think of the site as a place for *observation* and *contemplation* than individual respondents (see Table 5.19).

## 5.2.1.3.4.4. Familiarity

Table 5.20: Variations based on familiarity

Case studies	Factors	Variables	P Value	Trend
PDMF	SPPCV	<i>Importance</i>	0.001	Familiar + Unfamiliar -
		<i>Readability</i>	0.025	Familiar + Unfamiliar -
7JM	SPPCV	<i>Readability</i>	0.049	Familiar + Unfamiliar -
		<i>Freedom</i>	0.001	Familiar + Unfamiliar -

PDMF respondents who were familiar with memorial design before the visit were more likely to think that the memorial was important and readable than those who were not familiar with the memorial design. For 7JM, meanwhile, familiarity positively affects the level of design *readability* and level of *freedom* at the memorial landscape. For JFKM, familiarity with memorial design does not affect any of the other variables (see Table 5.20).

## 5.2.1.3.4.5. Placing tribute

At PDMF, respondents who placed a tribute were more likely to think that memorial was *important, attaching, cathartic* and *successful* than those who did not. At 7JM, meanwhile, respondents who placed a tribute were more likely to think that the memorial was good for *contemplating* than those who did not. Moreover, placing tribute at the memorial site had a positive effect on the levels of *attachment* and *belonging* at JFKM (see Table 5.21).

Table 5.21: Variations based on placing tribute

Case studies	Factors	Variables	P Value	Trend
PDMF	SPPCV	<i>Importance</i>	0.005	Tribute + No tribute -
		<i>Attachment</i>	0.001	Tribute+ No tribute -
		<i>Catharsis</i>	0.009	Tribute + No tribute -
		<i>Success</i>	0.036	Tribute + No tribute -
7JM	SEA	<i>Contemplating</i>	0.001	Tribute + No tribute -
JFKM	SPPCV	<i>Attachment</i>	0.010	Tribute + No tribute -
		<i>Belonging</i>	0.007	Tribute + No tribute -

#### 5.2.1.3.4.6. Key findings

Notably, across all case study sites, female respondents were more likely to have an interesting memorial experience and interaction than male respondents. At PDMF, females were more likely to enjoy the memorial generally and the *water feature* particularly, and had a more *successful* experience, while at 7JM, they were more *contemplative, reflective, thoughtful*, likely to *remember* and likely to think the memorial was very *important* than were male visitors. 7JM's female visitors were also more likely to appreciate the *description plaque* than males. At JFKM, females were more likely to think that the memorial was *important*, that it gave senses of *attachment, belonging* and *freedom* and that it was *cathartic* and *readable* than male visitors; they were also more interactive (*touching* and *writing*) and self-expressing than males.

In terms of group types, groups and families visiting PDMF were more likely to *play with the water* and *have picnics* than people visiting the memorial alone or as a couple. At 7JM, individuals and couples were more *attached* and likely to think the memorial was *readable* than people visiting in groups. Individual visitors at JFKM were more likely to think that the memorial was *enjoyable* and *cathartic* than family visitors, whereas people in groups were more *observant* and *contemplative* than individuals.

At both PDMF and 7JM, visitors who knew about the memorials before visiting were more likely to be able to *read memorial meanings*, think (at PDMF) that the memorial was *important* and think (at 7JM) that the memorial gave a sense of *freedom* than people who were not familiar with the memorial design concept. At the 7JM site, the memorial was more important to British visitors than others.

### 5.2.2. Results of the qualitative data from the users' questionnaire

#### 5.2.2.1. Introduction

Analysis of qualitative data is based on interpretive research, where the researcher's biases, values and judgment are expressed fully and clearly throughout the research report. This type of analysis is considered healthy and positive (Locke et al., 1987). Data analysis requires the researcher to develop categorisation, comparison and contrast models for handling the data and interpreting results (Creswell, 1994).

The levels of interpretation vary from general to more specific; they generate valuable information about the way respondents perceive and evaluate memorial design and its symbolic environment. The level of frequency of any response can be considered an indicator of its significance. However, understanding the person-environment relationship requires a holistic approach that links its assessment with a variety of aspects that have been identified by the respondents.

This approach can be explained and justified by the theory of transaction. The study of memorial landscape has deep roots in people's memory and history, through which they evoke their feelings and experiences at these distinctive places. Allowing respondents to write down their own reasons and comments can expose more insights into user-memorial relationship dimensions and intentions and thoughts about memorial environments, in conjunction with quantitative results from other research methods.

#### 5.2.2.2. *Analysing qualitative responses*

The users' questionnaire utilised a mix of open-ended and closed questions. As described in the data collection methods, respondents were asked to score their evaluation on a five-point scale for each personal project dimensions question, and then provide reasons for their answers. For instance, in the SPPCV section of the questionnaire, respondents were first asked 'How important is this memorial for you?' Then, for each score given, they were asked 'Why?' This was in order to identify the reason/s for respondents' scores. It allowed people to reflect on their answers and express their internal representation of their memorial experience. Answers for the 'Why?' part of the questionnaire were classified into various topics mostly related to SPPCV's 10 dimensions. Despite the fact that all responses were brief (only one sentence or so), this classification was based on the frequency of specific ideas or words, which make respondents' answers meaningful and relevant to memorial design aspects.

#### 5.2.2.3. *Dimensions*

Dimensions are the motivation forces behind people's involvement in and attitudes toward memorial landscapes. These forces lie behind any physical or emotional occurrence of behaviour in the environment, whether it is visible or hidden, permanent or momentary; this is also explained by the respondents' SPPCV five-point scale answers.

#### 5.2.2.4. *Response results*

The following tables will represent the responses from SPPCV open-ended questions (the 'Why?' questions) from the users' questionnaire utilised in the three case studies. They will be categorised based on the ten SPPCV factors, in addition to response dimensions that resulted from respondents' motivations for their scores.

*PDMF responses:*

Table 5.22: PDMF qualitative responses result 01

<i>SPPCV</i>	<i>Responses Dimensions</i>	<b>Commemorated subject</b>	<b>Quality of outdoor space</b>	<b>Memorial readability</b>
<b>Importance</b>		<p><i>PDMF 1:</i> Special lady...</p> <p><i>PDMF 9:</i> Keeps Diana's memory alive - all the good charity week especially with kids...</p> <p><i>PDMF 10:</i> All people are created equal</p> <p><i>PDMF 13:</i> She was a wonderful princess.</p> <p><i>PDMF 14:</i> It is a tribute to princess Diana + life's work</p> <p><i>PDMF 20:</i> It reminds me of what a wonderful woman Diana was.</p> <p><i>PDMF 21:</i> The most human royal ever.</p> <p><i>PDMF 22:</i> I've never really cared much about the royals. (Negative)</p> <p><i>PDMF 30:</i> Diana's death was very sad, but to be really honest I never could quite understand what all the fuss was about. (Negative)</p> <p><i>PDMF 33:</i> I really loved princess Diana and was so upset when she was killed.</p> <p><i>PDMF 36:</i> Diana was special</p>	<p><i>PDMF 11:</i> I do not know too much about the memorial, I went because it is a nice outdoor space.</p> <p><i>PDMF 27:</i> We come here a lot in the summers. My little boy loves it.</p> <p><i>PDMF 29:</i> Appreciate it as a nice part of park where friends + families get together more than as memorial</p>	
	<b>Belonging</b>	<p><i>PDMF 1:</i> Everyone feels like they knew her!</p>	<p><i>PDMF 11:</i> I do not know too much about the memorial, I went because it is a nice outdoor space</p>	



	<p><i>PDMF 8:</i> Diana was an international icon, so this memorial is important worldwide.</p> <p><i>PDMF 14:</i> I represent one of the people she related with during her life as princess of the people.</p> <p><i>PDMF 21:</i> Diana was the princess of the people</p>	<p><i>PDMF 20:</i> It is a nice place to come and relax.</p> <p><i>PDMF 33:</i> I really like the granite and water effect but not sure if I belong to this.</p>	
Attachment	<p><i>PDMF 1:</i> I met her when I was a child. I gave her flowers on a visit to my city.</p> <p><i>PDMF 8:</i> A little due to the fact that I live in London and favoured Diana ...</p> <p><i>PDMF 17:</i> feel Diana is an important figure ...</p> <p><i>PDMF 19:</i> I was young when she died.</p> <p><i>PDMF 21:</i> Diana was a real person</p> <p><i>PDMF 22:</i> I've never really cared much about the royals. (Negative)</p> <p><i>PDMF 31:</i> For me it's just a focal point to remember Diana. I don't feel emotional about it. (Negative)</p> <p><i>PDMF 33:</i> It is a fitting tribute to princess Diana and is very tranquil.</p>	<p><i>PDMF 11:</i> I do not know too much about the memorial, I went because it is a nice outdoor space</p> <p><i>PDMF 29:</i> Appreciate it as a nice part of park where friends + families get together more that as memorial</p> <p><i>PDMF 34:</i> It feels more like a water feature than a monument</p>	
Enjoyment	<p><i>PDMF 1:</i> Very fitting. She [Diana] would have loved to see all children having fun.</p> <p><i>PDMF 20:</i> It is an excellent tribute to a wonderful woman</p>	<p><i>PDMF 4:</i> Nice place, nothing to do with the fact it is a 'memorial'.</p> <p><i>PDMF 8:</i> it is interactional, great space, big so everyone can enjoy + relax around it.</p> <p><i>PDMF 11:</i> It is a lovely place to visit in nice weather. It is in lovely surroundings.</p> <p><i>PDMF 17:</i> Beautiful spot in the city</p> <p><i>PDMF 19:</i> A nice spot.</p> <p><i>PDMF 22:</i> Nice and open</p> <p><i>PDMF 24:</i> It is very nice</p> <p><i>PDMF 28:</i> It is a lovely peaceful place to let my daughter paddle in a beautiful, safe environment.</p> <p><i>PDMF 30:</i> The sense of fun it encouraged was great</p>	

		<i>PDMF 36:</i> Funny, happy, relaxed place	
<b>Time adequacy</b>	<i>PDMF 19:</i> People liked her and she liked people	<i>PDMF 2:</i> I was not there for 'memorial' reasons <i>PDMF 4:</i> As in any park/garden, is spend the time I can/want. <i>PDMF 8:</i> I think not too long (hours), but not too short (5 mins) it's nice to relax + enjoy. <i>PDMF 11:</i> It was adequate for what we went there for, which was to have a sit & a paddle. <i>PDMF 14:</i> We wanted to relax under the sun in a fun environment. <i>PDMF 34:</i> We spent approx. 45 mins as part of a park visit	
<b>Readability</b>	<i>PDMF 4:</i> I understand that Diana was hugely influential and loved personality <i>PDMF 21:</i> Happy, sad, lonely, not wanted. <i>PDMF 29:</i> Nothing really about Diana...maybe the river symbolises 'constant flow'		<i>PDMF 2:</i> I didn't have time to read all the information at the entrance! <i>PDMF 4:</i> Fountain.... elements? <i>PDMF 11:</i> I don't know anything about the memorial. <i>PDMF 19:</i> Infinity <i>PDMF 22:</i> I haven't tried searching about it. <i>PDMF 27:</i> Do not know about the meaning ...To know - will research ... <i>PDMF 28:</i> Haven't read much about it. <i>PDMF 29:</i> Nothing really about Diana...maybe the river symbolises 'constant flow' <i>PDMF 30:</i> Not sure there was much to understand <i>PDMF 32:</i> The concept of the memorial manifests itself clearly and a friend told me about it. <i>PDMF 34:</i> We didn't engage with the memorial symbolism.
<b>Catharsis</b>	<i>PDMF 8:</i> It's comforting having something to actually helping remember Diana <i>PDMF 34:</i> We were not affected by the Diana's death	<i>PDMF 6:</i> I don't think of it as a memorial <i>PDMF 12:</i> I have no interest in this water feature in relation to a memorial.	
<b>Didacticism</b>	<i>PDMF 21:</i> Diana loved children. It is nice to see them play here.	<i>PDMF 29:</i> learn that everyone enjoys same things: sunny day, their families, water, and picnic.	

	<i>PDMF 24:</i> I learned that it is a memorial for Diana. (I didn't know it was here).	<i>PDMF 31:</i> It's not that complicated! Just enjoy it for what it is.	
<b>Freedom</b>		<i>PDMF 4:</i> As in a park ... I feel pretty free. <i>PDMF 11:</i> You can do a number of things such as read, observe, relax, paddle and walk. <i>PDMF 14:</i> Because you can choose to stand in the water, sit on the grass, walk, run, laugh, and read. There are no restrictions. <i>PDMF 17:</i> No restrictions <i>PDMF 29:</i> Open space and water + different forms of water encourage playfulness + exploration. <i>PDMF 32:</i> It stretches over a vast area	
<b>Success</b>		<i>PDMF 2:</i> It was a very hot day - the water mitigates that. <i>PDMF 5:</i> Very enjoyable time spent with friends in a lovely setting.  <i>PDMF 6:</i> Very nice picnic <i>PDMF 8:</i> We didn't actually come here for the memorial, but stopped on the way somewhere <i>PDMF 9:</i> Enjoyable afternoon with fun & relaxation <i>PDMF 10:</i> Creates a pleasant atmosphere like most water features on a warm day. <i>PDMF 11:</i> It was a nice peaceful & fun time <i>PDMF 14:</i> We relaxed + enjoyed the lively environment. There was a group of deaf people next to us talking part in silent yet vigorous conversation = inspiring + positive.  <i>PDMF 16:</i> Had a lovely picnic  <i>PDMF 17:</i> Want to showing friend a nice spot he hasn't been	

		<p><i>PDMF 19:</i> Unplanned nice weather &amp; good cupcakes</p> <p><i>PDMF 20:</i> It is a beautiful place to visit</p> <p><i>PDMF 21:</i> Nice. Enjoyed</p> <p><i>PDMF 28:</i> Lovely peaceful place</p> <p><i>PDMF 34:</i> Spending time at the memorial</p> <p><i>PDMF 36:</i> is an addition to a park visit</p> <p>Lovely day</p>	
Extra notes		<i>PDMF 11:</i> Please note: I didn't go to the memorial because it was the memorial for princess Diana, I went because it was a nice outdoor space.	
<b>Total:</b>	<b>33</b> <b>Commemorated subject</b>	<b>52</b> <b>Quality of landscape design</b>	<b>11</b> <b>Memorial readability</b>

Table 5.23: PDMF qualitative responses result 02

SPPCV	Responses Dimensions	Memorial Catharsis	Memorial didacticism	Memorial design/aesthetics
Importance				<p><i>PSMF 4:</i> It is a nice place, I like the fountain...</p> <p><i>PDMF 2:</i> I think that it's beautiful and that it was a good thing it was built, but feel disconnected 'Diana mania'.</p>

<b>Belonging</b>	<p><i>PDMF 30:</i> I felt a great sense of calm + peace whilst I was there, which I think connected me to the place.</p> <p><i>PDMF 31:</i> It is a good place to visit, to remember, but I don't belong here.</p>		
<b>Attachment</b>	<p><i>PDMF 20:</i> I always feel emotional when I rest by the fountain.</p> <p><i>PDMF 29:</i> My husband and I felt so relaxed and have very happy memories of our visit.</p> <p><i>PDMF 33:</i> It is a fitting tribute to princess Diana and is very tranquil.</p>		
<b>Enjoyment</b>	<p><i>PDMF 8:</i> it is interactional, great space, big so everyone can enjoy + relax around it.</p> <p><i>PDMF 21:</i> Relaxing</p> <p><i>PDMF 36:</i> Funny, happy, relaxed place</p>		<p><i>PDMF 2:</i> Architecturally/engineering wise beautiful. A happy place.</p> <p><i>PDMF 17:</i> Beautiful spot in the city</p> <p><i>PDMF 19:</i> A nice spot.</p> <p><i>PDMF 20:</i> It is an excellent tribute to a wonderful woman.</p> <p><i>PDMF 24:</i> It is very nice</p> <p><i>PDMF 27:</i> We enjoy the water feature and my boy has fun meeting other kids.</p> <p><i>PDMF 28:</i> It is a lovely peaceful place to let my daughter paddle in a beautiful, safe environment.</p> <p><i>PDMF 32:</i> I enjoy watching water</p> <p><i>PDMF 33:</i> I love this memorial. I love water and granite landscapes like this. It reminds me of a fountain in Munich, Germany where water jets out from a granite grounds</p>
<b>Time adequacy</b>	<p><i>PDMF 8:</i> I think not too long (hours), but not too short (5 mins) it's nice to relax + enjoy.</p> <p><i>PDMF 17:</i> I relaxed ... and my friend enjoyed it</p>		<p><i>PDMF 33:</i> I wanted to stay longer and reflect on its significance.</p>

	<i>PDMF 31</i> : I used the time to take a rest and to remember		
<b>Catharsis</b>	<p><i>PDMF 2</i>: It is peaceful (despite all the people in it) but I wasn't looking for comfort.</p> <p><i>PDMF 4</i>: It is a nice, peaceful place.</p> <p><i>PDMF 8</i>: It's comforting having something to actually helping remember Diana</p> <p><i>PDMF 9</i>: Sense of happiness</p> <p><i>PDMF 19</i>: Relaxing ...</p> <p><i>PDMF 24</i>: I am not upset!</p> <p><i>PDMF 27</i>: A calm tranquil place to come as my son enjoys the water.</p> <p><i>PDMF 33</i>: I found it to be a great comfort to me.</p>		<i>PDMF 32</i> : Water
<b>Didacticism</b>		<p><i>PDMF 12</i>: Nothing learnt ...<i>(Negative)</i></p> <p><i>PDMF 19</i>: I haven't read any thing here <i>(Negative)</i></p> <p><i>PDMF 31</i>: It's not that complicated! Just enjoy it for what it is.</p> <p><i>PDMF 34</i>: We didn't look at the text...</p>	<p><i>PDMF 2</i>: Interesting to see the different dynamics of the water + to learn about the granite.</p> <p><i>PDMF 8</i>: Just the design, regarding the water + how every one can enjoy it</p> <p><i>PDMF 14</i>: I read on the display panel that water flows in 2 directions to reach a calm at the bottom.</p> <p><i>PDMF 20</i>: I learnt all the stones were brought from cornwall + the water is taken from a spring.</p> <p><i>PDMF 32</i>: I learn it is possible to cut stone in these interesting ways.</p> <p><i>PDMF 33</i>: The designer Kathryn Gustafson + the initial problems with the memorial.</p>
<b>Freedom</b>	<i>PDMF 8</i> : Without reason, (no ball games) but I would expect this of a peaceful place		<i>PDMF 28</i> : Aware that it is a memorial therefore we treat it with respect.

			<i>PDMF 29:</i> Open space and water + different forms of water encourage playfulness + exploration.
<b>Success</b>	<i>PDMF 9:</i> Enjoyable afternoon with fun & relaxation <i>PDMF 11:</i> It was a nice peaceful & fun time <i>PDMF 24:</i> I am here to relax and meet my friends. <i>PDMF 27:</i> We always have a good time here, meeting people + having fun and relax  <i>PDMF 28:</i> Lovely peaceful place  <i>PDMF 31:</i> Happy and rested		<i>PDMF 20:</i> It is a beautiful place to visit  <i>PDMF 21:</i> Nice. Enjoyed  <i>PDMF 33:</i> I love visiting the memorial. It is extremely high piece of water sculpture and I think every building (commercial) should have such a sculpture.
<b>Extra notes</b>			<i>PDMF 14:</i> PS. It is wonderful to see the shape of the memorial on the cover of your leaflet. I have never pictured what it must look like from the air.
<b>Total</b>	<b>26</b>	<b>4</b>	<b>25</b>
	<b>Memorial catharsis</b>	<b>Memorial didacticism</b>	<b>Memorial design/aesthetic</b>

Table 5.24: PDMF qualitative responses result 03

<i>SPPCV</i>	Responses Dimensions	Cultural Background	Social/collective values
<b>Importance</b>		<i>PDMF 24:</i> I am not from England and do not really have a connection with Diana	<i>PDMF 6:</i> Kid's play area  <i>PDMF 27:</i> We come here a lot in the summers. My little boy loves it. <i>PDMF 29:</i> Appreciate it as a nice part of park where friends + families get together more than as memorial <i>PDMF 32:</i> It is important to a friend

<b>Belonging</b>	<p><i>PDMF 2:</i> I was living abroad when Diana died and found it difficult to understand the hysterical UK reaction</p> <p><i>PDMF 13:</i> It is part of my country</p> <p><i>PDMF 19:</i> I am not from England and I don't live here</p>	<p><i>PDMF 6:</i> Kid's play area</p> <p><i>PDMF 22:</i> It is for the people.</p> <p><i>PDMF 24:</i> I feel that every one does</p> <p><i>PDMF 29:</i> So many people ... all races, colours, sizes, religions, and every one is happy.</p>
<b>Attachment</b>	<p><i>PDMF 8:</i> A little due to the fact that I live in London and favoured Diana</p>	<p><i>PDMF 6:</i> Kid's play area</p>
<b>Enjoyment</b>		<p><i>PDMF 1:</i> Very fitting. She [Diana] would have loved to see all children having fun.</p> <p><i>PDMF 2:</i> Architecturally/engineering wise beautiful. A happy place.</p> <p><i>PDMF 8:</i> it is interactional, great space, big so everyone can enjoy + relax around it.</p> <p><i>PDMF 9:</i> Excellent for my 4 years old son to play</p> <p><i>PDMF 10:</i> Pleasant atmosphere, seemed to be enjoyed by children mainly, which is a good thing</p> <p><i>PDMF 14:</i> It was a lovely sunny day + there were people enjoying the environment from all walks of life/age/cultural/social, etc.</p> <p><i>PDMF 15:</i> Lovely place to bring the kids</p> <p><i>PDMF 27:</i> We enjoy the water feature and my boy has fun meeting other kids.</p> <p><i>PDMF 28:</i> It is a lovely peaceful place to let my daughter paddle in a beautiful, safe environment.</p> <p><i>PDMF 29:</i> Because I saw so many other people enjoying it, especially children playing + that made me happy.</p> <p><i>PDMF 31:</i> It is very nice to see all ages interact with it. A fitting tribute ...To all types of people.</p> <p><i>PDMF 34:</i> My children enjoy playing near the water</p>



<b>Time adequacy</b>		<p><i>PDMF 7:</i> Kids had a great time</p> <p><i>PDMF 17:</i> I relaxed ... and my friend enjoyed it</p> <p><i>PDMF 19:</i> People liked her and she liked people</p>
<b>Readability</b>		<p><i>PDMF 14:</i> I think I do as a place for the people. I think this is exactly what she would have wanted.</p> <p><i>PDMF 24:</i> One of my friends explained it.</p> <p><i>PDMF 32:</i> The concept of the memorial manifests itself clearly and a friend told me about it.</p>
<b>Catharsis</b>		<p><i>PDMF 27:</i> A calm tranquil place to come as my son enjoys the water.</p> <p><i>PDMF 29:</i> Because of all the children it attracts...makes me feel youthful + playful</p>
<b>Didacticism</b>		<p><i>PDMF 21:</i> Diana loved children. It is nice to see them play here.</p> <p><i>PDMF 29:</i> learn that everyone enjoys same things: sunny day, their families, water, and picnic.</p>
<b>Freedom</b>		<p><i>PDMF 9:</i> Yes definitely for my son</p> <p><i>PDMF 21:</i> We can sit, chat, just nice ...</p> <p><i>PDMF 27:</i> Obviously there are security aspects that limit the kids. (Negative)</p> <p><i>PDMF 28:</i> Aware that it is a memorial therefore we treat it with respect.</p> <p><i>PDMF 34:</i> We used it respectfully - but noticed others who didn't and were 'told off'</p>
<b>Success</b>		<p><i>PDMF 5:</i> Very enjoyable time spent with friends in a lovely setting.</p> <p><i>PDMF 12:</i> We had fun here. Good people watching too. Good for kids.</p> <p><i>PDMF 14:</i> We relaxed + enjoyed the lively environment. There was a group of deaf people next to us talking part in silent yet vigorous conversation = inspiring + positive.</p> <p><i>PDMF 17:</i> Want to showing friend a nice spot he hasn't been</p>

		<p><i>PDMF 24:</i> I am here to relax and meet my friends.</p> <p><i>PDMF 27:</i> We always have a good time here, meeting people + having fun and relax</p> <p><i>PDMF 29:</i> We didn't know what to expect + we really, really enjoy ourselves.</p>
<b>Extra notes</b>		<p><i>PDMF 12:</i> It is not necessarily the memorial itself that encourages the above [activities] - just my life circumstances. e.g. If I did not have children I would be less inclined to play in water.</p> <p><i>PDMF 29:</i> We sat along edges W/feet in water. So nice!</p>
<b>Total</b>	<b>5</b>	<b>45</b>
	<b>Cultural background</b>	<b>Social / collective values</b>

### 7JM responses

Table 5.25: 7JM qualitative responses result

<i>SPPCV</i>	Responses Dimensions	Commemorated subject	Quality of Landscape design	Memorial readability
	<b>Importance</b>	<p><i>7JM 3:</i> Not important to me personally, but important that those who died are remembered.</p> <p><i>7JM 7:</i> Involved with the event around 7/7/05. Also live in London.</p> <p><i>7JM 9:</i> Very - people should be remembered.</p> <p><i>7JM 11:</i> For foreigners (we are Germans) it's good to remember this event</p> <p><i>7JM 13:</i> It is important to remember people.</p> <p><i>7JM 17:</i> It helps you remember.</p>		

	<p><i>7JM 18:</i> The innocent dead deserve to be remembered.</p> <p><i>7JM 22:</i> It is important to remember the effects of such incident</p> <p><i>7JM 24:</i> It is important as a witness to those innocent people who died.</p>		
<b>Belonging</b>	<p><i>7JM 11:</i> I don't have a personal connection</p> <p><i>7JM 12:</i> Not personally affected</p> <p><i>7JM 19:</i> I do sympathise with the victims.</p> <p><i>7JM 21:</i> No link to victims - didn't live in London at time of 7/7 bombings</p> <p><i>7JM 24:</i> I knew no one personally who was killed.</p>		
<b>Attachment</b>	<p><i>7JM 1:</i> As a member of the public unaffected by the events one can only empathise.</p> <p><i>7JM 3:</i> Not particularly emotionally attached because I don't know any of the people who died.</p> <p><i>7JM 7:</i> Involved with the events around 7/7/05</p> <p><i>7JM 9:</i> It's very emotional looking at the names of the people killed.</p> <p><i>7JM 17:</i> I didn't know any of the people.</p> <p><i>7JM 19:</i> One of the explosion places was not far from my place. It is on my way to university. I could easily be one of the victims.</p> <p><i>7JM 23:</i> It's all about people, which we are!!</p> <p><i>7JM 24:</i> I knew no one personally who was killed.</p>		
<b>Enjoyment</b>			
<b>Time adequacy</b>	<p><i>7JM 11:</i> We thought about the victims, about the background</p>		<p><i>7JM 8:</i> 5 mins is enough to absorb the concept.</p> <p><i>7JM 8:</i> The message is clearly expressed.</p>
<b>Readability</b>			<p><i>7JM 1:</i> It seemed quite clear - a structure for each victim.</p> <p><i>7JM 3:</i> I am guessing there is one pillar for each person who died saying where and what time.</p> <p><i>7JM 9:</i> Very clear</p> <p><i>7JM 10:</i> ... simplicity</p> <p><i>7JM 11:</i> We interpreted them ourselves</p> <p><i>7JM 12:</i> I assume links with train bombings!</p> <p><i>7JM 23:</i> Well as I said before I think the columns represent people.</p>

<b>Catharsis</b>	<p><i>7JM 1:</i> I do not feel comforted. I had no personal connection. I do think it made me feel sad that the events occurred.</p> <p><i>7JM 3:</i> Because they are being remembered.</p> <p><i>7JM 21:</i> No personal attachment anyway - No comfort required.</p> <p><i>7JM 24:</i> Comfort is the wrong word. I lost no one close.</p>		
<b>Didacticism</b>	<p><i>7JM 8:</i> I read the names of victims</p> <p><i>7JM 10:</i> It shows locations of bombs, names and numbers of people affected.</p>		<i>7JM 11:</i> There is a memorial (we didn't know, walked by). It's important to consider common history.
<b>Freedom</b>	<p><i>7JM 1:</i> I don't really understand this question- I think it made me recognize that sadly people can be linked by being in the wrong place at the wrong time.</p> <p><i>7JM 7:</i> Because you never know what's around the corner - fragility of life.</p>		
<b>Success</b>			<i>7JM 8:</i> I remember this tragic event, watch the symbols...and you help me with filling in this questionnaire.
<b>Extra notes</b>			
<b>Total:</b>	<b>31</b>	<b>0</b>	<b>11</b>
	<b>Commemorated subject</b>	<b>Quality of landscape design</b>	<b>Memorial readability</b>

Table 5.26: 7JM qualitative responses result

SPPCV	Responses Dimensions	Memorial Catharsis	Memorial didacticism	Memorial design/aesthetics
<b>Importance</b>			<i>7JM 6:</i> Important to remember + learn from history	<i>7JM 23:</i> It is like Holocaust memorial in Berlin so nothing new.
<b>Belonging</b>				
<b>Attachment</b>		<i>7JM 9:</i> It's very emotional looking at the names of the people killed. <i>7JM 22:</i> It brings back the feeling I had on the day.	<i>7JM 9:</i> It's very emotional looking at the names of the people killed. <i>7JM 11:</i> I didn't know that there were so many victims in different places.	<i>7JM 8:</i> Because each pillar represents one soul. <i>7JM 18:</i> It is simple rather beautiful, yet quite hard to find.
<b>Enjoyment</b>		<i>7JM 1:</i> Enjoy is an odd word. I recognize its value and hope it makes people remember and reflect.  <i>7JM 3:</i> It caused me to stop and think, also I like the way it is designed.  <i>7JM 7:</i> Sense of connection  <i>7JM 13:</i> I don't think 'enjoy' is an appropriate word when referring to a memorial!  <i>7JM 11:</i> Can you 'enjoy' such a memorial? I think it's important.  <i>7JM 17:</i> It is not a place to enjoy. It is a sad reminder of man's inhumanity to man.		<i>7JM 8:</i> I like the symbols each column expresses.  <i>7JM 9:</i> It's elegant  <i>7JM 13:</i> Like the symbolism.  <i>7JM 19:</i> I like abstract things. I like the verticality of columns.  <i>7JM 21:</i> Enjoy the strong symbolism of columns.  <i>7JM 22:</i> It is stark and beautiful in its simplicity.  <i>7JM 22:</i> Nothing exciting about it. (Negative)  <i>7JM 24:</i> It reminds me of the Vietnam war memorial in Washington DC.
<b>Time adequacy</b>		<i>7JM 3:</i> A couple of minutes of contemplation. <i>7JM 17:</i> It was enough time to remind me of the specific event + reflect on it.		<i>7JM 8:</i> 5 mins is enough to absorb the concept. <i>7JM 17:</i> There is nothing to do there other than walking between columns.

			<i>7JM 23:</i> Too small, and nothing to do apart from wandering around.
<b>Readability</b>			<i>7JM 24:</i> It is simple, to the point, and points no finger of blame at anyone.
<b>Catharsis</b>	<p><i>7JM 1:</i> I do not feel comforted. I had no personal connection. I do think it made me feel sad that the events occurred.</p> <p><i>7JM 3:</i> Because they are being remembered.</p>		<p><i>7JM 8:</i> Because of the landscape. ..I could go around and touch the columns.</p> <p><i>7JM 18:</i> It is simple and calm, wish grass slopes to sit on.</p> <p><i>7JM 19:</i> I could walk through it.</p> <p><i>7JM 23:</i> Why it should? Nothing there apart from columns. (Negative)</p>
<b>Didacticism</b>		<p><i>7JM 1:</i> Nothing particularly springs to mind.</p> <p><i>7JM 8:</i> I read the names of victims</p> <p><i>7JM 10:</i> It shows locations of bombs, names and numbers of people affected.</p> <p><i>7JM 18:</i> I didn't 'learn' anything in the intellectual sense of the word. (Negative)</p> <p><i>7JM 21:</i> No real learning possible - Place could contain more info on what it refers to. (Negative)</p>	<i>7JM 19:</i> Manufacturing narrow columns is possible when using the material used in those columns.
<b>Freedom</b>			<p><i>7JM 18:</i> It can be walked through or simply observed.</p> <p><i>7JM 19:</i> I could easily wander around it and touch its features. I could not notice any CCTV</p> <p><i>7JM 21:</i> Enjoyed being able to walk through columns.</p> <p><i>7JM 23:</i> I agree with this as you can go around reading, and touching it.</p>
<b>Success</b>	<p><i>7JM 8:</i> I remember this tragic event, watch the symbols...and you help me with filling in this questionnaire.</p> <p><i>7JM 9:</i> Important to remember.</p> <p><i>7JM 12:</i> Find it very moving.</p>	<p><i>7JM 21:</i> Enjoyed visit, like more info on reasons for memorial. A lot of dead flowers at plaque. (Negative)</p>	<p><i>7JM 3:</i> I think the memorial is a good way to commemorate those who died. Well designed.</p> <p><i>7JM 10:</i> The simplicity of design in a lovely setting.</p> <p><i>7JM 23:</i> I don't like it that much, I thought it's going to be bigger...(Negative)</p>

	<p><i>7JM 17:</i> We happened upon it unplanned. It was a solemn reminder.</p> <p><i>7JM 22:</i> It brought back memories, which must not be forgotten.</p> <p><i>7JM 24:</i> It reminds one of what people might forget too easily.</p>		
Extra notes			
<b>Total</b>	<b>18</b>	<b>9</b>	<b>28</b>
	<b>Memorial catharsis</b>	<b>Memorial didacticism</b>	<b>Memorial design / aesthetics</b>

Table 5.27: 7JM qualitative responses result

SPPCV	Responses Dimensions	Cultural/geographical Background	Collective Social values
Importance		<p><i>7JM 7:</i> Involved with the event around 7/7/05. Also live in London.</p> <p><i>7JM 8:</i> Well known, but I am foreigner, so it is neutral for me!</p> <p><i>7JM 12:</i> Part of my history</p> <p><i>7JM 21:</i> No link to victims - didn't live in London at time of 7/7 bombings</p>	<p><i>7JM 1:</i> It has no personal connection to me but I think it is an important tribute.</p>
Belonging		<p><i>7JM 3:</i> I belong there as a member of the British public remembering other members + public who died.</p> <p><i>7JM 9:</i> I live in London.</p> <p><i>7JM 21:</i> No link to victims - didn't live in London at time of 7/7 bombings</p> <p><i>7JM 22:</i> I am not a Londoner.</p>	<p><i>7JM 1:</i> It is more important for other people.</p> <p><i>7JM 17:</i> Without visitors it would be pointless</p> <p><i>7JM 23:</i> It's all about people, which we are!!</p>
Attachment		<p><i>7JM 19:</i> One of the explosion places was not far from my place. It is on my way to university. I could easily be one of the victims.</p>	
Enjoyment		<p><i>7JM 18:</i> The names show how multicultural London is and how terrorism is so indiscriminate</p>	

<b>Time adequacy</b>		<i>7JM 9:</i> I'd like to be by myself
<b>Readability</b>		<i>7JM 19:</i> Because a friend explained it to me.
<b>Catharsis</b>		<i>7JM 12:</i> So glad it is there for the families.
<b>Didacticism</b>		<i>7JM 12:</i> Size of the loss, spread of nationalities. <i>7JM 17:</i> That war affects us all. <i>7JM 24:</i> I learned that public grief does not involve blame.
<b>Freedom</b>		<i>7JM 9:</i> Makes me feel lucky I am alive. <i>7JM 17:</i> This is a question, which is inappropriate. No one ever has freedom to do whatever they like.
<b>Success</b>		<i>7JM 11:</i> We learned about a way to commemorate things in democracy  <i>7JM 19:</i> I had good time there with a friend and we went to the nearby lake.  <i>7JM 24:</i> It reminds one of what people might forget too easily.
<b>Extra notes</b>		
<b>Total</b>	<b>11</b> <b>Cultural/geographical Background</b>	<b>15</b> <b>Collective Social values</b>

*JFKM responses*

Table 5.28: JFKM qualitative responses result

<i>SPPCV</i>	Responses Dimensions	Commemorated subject	Quality of outdoor space	Memorial readability
<b>Importance</b>		<b>JFKM 05:</b> It is a nice thing to have done		



	<p><b>JFKM 10:</b> JFK is a famous guy and his death is important historically</p> <p><b>JFKM 28:</b> The words on freedom constantly need lightening for (unfortunately). Always have and always will.</p> <p><b>JFKM 28:</b> The Kennedy memorial left me with a good feeling of time past, you could nearly hear voices of 1215 when the barons forced the king to sign the Magna Carta below at Runnymede.</p>		
<b>Belonging</b>	<p><b>JFKM 21:</b> It is only a memorial to an American politician (Negative)</p>		
<b>Attachment</b>	<p><b>JFKM 09:</b> It has no emotional attachments to me but the reason is that there is a sad story</p> <p><b>JFKM 21:</b> It is only a memorial to an American politician (Negative)</p>		
<b>Enjoyment</b>	<p><b>JFKM 11:</b> A good tribute to a great man</p> <p><b>JFKM 13:</b> Of an age to remember Kennedy</p> <p><b>JFKM 15:</b> Very pleasant and peaceful memorial good for a memorial to the man</p> <p><b>JFKM 26:</b> Durable memorial, an appreciation of the life of an important figure</p>	<p><b>JFKM 01:</b> Again proud to live near it and enjoy beautiful surroundings and tranquillity</p> <p><b>JFKM 02:</b> Beautiful surroundings thought provoking words</p> <p><b>JFKM 09:</b> The location and settings even with a main road close by it was peaceful</p> <p><b>JFKM 12:</b> Peaceful place</p> <p><b>JFKM 15:</b> Very pleasant and peaceful memorial good for a memorial to the man</p>	<p><b>JFKM 10:</b> I thought it was wanted and understood quite lovely</p>

		<p><b>JFKM 20:</b> Sense of peace</p> <p><b>JFKM 24:</b> It is not the memorial I enjoy as much as the venue</p>	
<b>Readability</b>	<p><b>JFKM 01:</b> Because I have been interested to learn about it</p> <p><b>JFKM 20:</b> My age 50+</p>		<p><b>JFKM 02:</b> Did not understand steps until explained</p> <p><b>JFKM 12:</b> The 3 different aspects of design and their significance</p> <p><b>JFKM 06:</b> The steps allegory of life, death and the after life</p> <p><b>JFKM 10:</b> The steps are symbol of the 50 states and the seats could represent king and queen</p> <p><b>JFKM 24:</b> I understand a little but probably not everything</p>
<b>Catharsis</b>	<p><b>JFKM 12:</b> Not personal to me. (Negative)</p>	<p><b>JFKM 20:</b> Sense of calm</p> <p><b>JFKM 10:</b> It is quite natural place of contemplation</p>	

<b>Freedom</b>	<b>JFKM 04:</b> In theory that is the concept of the man this memorial depicted	<b>JFKM 01:</b> Because the surroundings are very natural and you can sit undressed	
<b>Success</b>	<b>JFKM 15:</b> Enjoyable to see memorial of someone I can remember	<b>JFKM 01:</b> Because of the beauty of its surroundings  <b>JFKM 02:</b> Peaceful!  <b>JFKM 25:</b> The successfulness of the memorial was surpassed by the beauty of the surrounding area	
<b>Total:</b>	<b>15</b> <b>Commemorated subject</b>	<b>13</b> <b>Quality of outdoor space</b>	<b>6</b> <b>Memorial readability</b>

Table 5.29: JFKM qualitative responses result

<b>SPPCV</b>	<b>Responses Dimensions</b>	<b>Memorial Catharsis</b>	<b>Memorial didacticism</b>	<b>Memorial design/aesthetics</b>
<b>Importance</b>		<b>JFKM 28:</b> I visited the memorial on my own and there appeared a tremendous depth of melancholy about the memorial.		<b>JFKM 06:</b> Reflection of a life wanted by being killed
<b>Belonging</b>				<b>JFKM 18:</b> Obscure symbolism. Plain sculpture <b>(Negative)</b>
<b>Attachment</b>		<b>JFKM 23:</b> It gives no emotion! <b>(Negative)</b>		<b>JFKM 18:</b> Uninspiring, unlike it <b>(Negative)</b>  <b>JFKM 23:</b> It gives no emotion! <b>(Negative)</b>

<b>Enjoyment</b>	JFKM 20: Sense of peace		JFKM 06: Was interesting. I know that the queen had given an area of land to the USA  JFKM 23: Boring! (Negative)
<b>Readability</b>		JFKM 25: I do not at all! (Negative)	JFKM 02: Did not understand steps until explained  JFKM 06: Good explanation given on board at entrance  JFKM 10: Only by reading the plaque at the entrance  JFKM 12: Good explanation at site board at entrance  JFKM 21: It is only normal memorial! (Negative)
<b>Catharsis</b>			JFKM 21: It is only normal memorial! (Negative)  JFKM 23: Because it is an inanimate object
<b>Didacticism</b>		JFKM 11: Like the 50 steps to represent the states of America  JFKM 13: Land was given to USA by queen  JFKM 15: Nothing, did not already know (Negative)  JFKM 25: Nothing! (Negative)	JFKM 01: About the architecture and the meanings of the design  JFKM 08: Dates!  JFKM 12: The 3 different aspects of design and their significance!  JFKM 13: Land was given to USA by queen  JFKM 20: An aspect on site and in written material

Freedom			<p><b>JFKM 11:</b> No place for people to leave messages or tribute!</p> <p><b>JFKM 20:</b> No restaurant and worshipping! (Negative)</p>
Success			<p><b>JFKM 06:</b> An interesting experience and a place to show my husband</p> <p><b>JFKM 12:</b> Thought provoking!</p> <p><b>JFKM 21:</b> It is only a memorial, if you want see a memorial that means something see the RAF uphill or go to Northern France where there are dozens. (Negative)</p> <p><b>JFKM 23:</b> The design was most enjoyable and was very successful</p> <p><b>JFKM 26:</b> Surprised in counter design fits into landscape</p>
<b>Total</b>	<b>3</b>	<b>5</b>	<b>25</b>
	<b>Memorial catharsis</b>	<b>Memorial didacticism</b>	<b>Memorial design/aesthetic</b>

Table 5.30: JFKM qualitative responses result

SPPCV	Responses Dimensions	Cultural, geographical and political background	Collective social values
Importance		<p><b>JFKM 1:</b> Nostalgia. Taken as a child by my father who has passed away</p> <p><b>JFKM 2:</b> JFK was part of my youth a hope for the future at that time</p>	<p><b>JFKM 09:</b> I respect its reason but it is of little importance of myself</p>

	<p><b>JFKM 4:</b> Part of heritage and who it depicts</p> <p><b>JFKM 15:</b> Recent history I can remember</p> <p><b>JFKM 18:</b> I remember the president and assassination</p> <p><b>JFKM 23:</b> Has no significance in my life (Negative)</p> <p><b>JFKM 24:</b> I used to attend the college at the top of the hill so it was nostalgic to see it</p> <p><b>JFKM 28:</b> The Kennedy memorial left me with a good feeling of time past, you could nearly hear voices of 1215 when the barons forced the king to sign the Magna Carta below at Runnymede.</p>	
<b>Belonging</b>	<p><b>JFKM 01:</b> Again Nostalgia and I live very close by and see it nearly daily</p> <p><b>JFKM 04:</b> I have grown up in this area and have been visiting it since young</p> <p><b>JFKM 09:</b> I am British, the memorial is for American although I do respect it as all memorials (Negative)</p> <p><b>JFKM 10:</b> It is part of my country and where I grew up</p> <p><b>JFKM 11:</b> Not American (Negative)</p> <p><b>JFKM 15:</b> Not American, sad story, young man killed</p> <p><b>JFKM 23:</b> It is not mine (Negative)</p> <p><b>JFKM 24:</b> I used to attend the college at the top of the hill so it was nostalgic to see it</p>	

<b>Attachment</b>	<p><b>JFKM 01:</b> Again Nostalgia for the same reasons and excitement as a child to be in USA</p> <p><b>JFKM 02:</b> JFK was a part of my youth. A hope of the future at that time</p> <p><b>JFKM 10:</b> It is part of my country and where I grew up</p> <p><b>JFKM 12:</b> Memories of childhood visits</p> <p><b>JFKM 13:</b> Of an age to remember Kennedy</p> <p><b>JFKM 15:</b> An American memorial affects me very little (Negative)</p> <p><b>JFKM 24:</b> I used to attend the college at the top of the hill so it was a nostalgic to see it</p> <p><b>JFKM 27:</b> Because I am an emotional person</p>	
<b>Enjoyment</b>	<p><b>JFKM 01:</b> Again proud to live near it and enjoy beautiful surroundings and tranquillity</p> <p><b>JFKM 06:</b> Was interesting. I know that the queen had given an area of land to the USA</p>	
<b>Time adequacy</b>	<p><b>JFKM 01:</b> Because I can go frequently, living locally</p> <p><b>JFKM 17:</b> The four of us remembered about where we were when JFK was assassinated</p>	
<b>Readability</b>	<p><b>JFKM 13:</b> Freedom to live in democratic country!</p> <p><b>JFKM 27:</b> Because I am clever!</p>	<p><b>JFKM 11:</b> I was a year old when JFK assassinated so was being told about him</p>

<b>Catharsis</b>	<p><b>JFKM 01:</b> It doesn't exactly comfort me but I liked it because it is a happy memories</p> <p><b>JFKM 15:</b> Although I can remember the incident but I do not feel too much about it (Negative)</p> <p><b>JFKM 27:</b> Because I am easily comforted</p>	
<b>Didacticism</b>	<b>JFKM 21:</b> Nothing, I knew he was dead	
<b>Freedom</b>	<p><b>JFKM 24:</b> The memorial does not do this at all. I feel free to do whatever I like anyway</p> <p><b>JFKM 25:</b> I am not controlled by anyone. The memorial offers an extra freedom.</p> <p><b>JFKM 27:</b> Because I am a free spirit</p>	<b>JFKM 10:</b> Depends on how many others are there
<b>Success</b>	<b>JFKM 27:</b> Love memorial.	<p><b>JFKM 06:</b> An interesting experience and a place to show my husband</p> <p><b>JFKM 10:</b> Speaking to you and sharing my thoughts was great</p>
<b>Total</b>	<p>37</p> <p><b>Cultural,geographical Background</b></p>	<p>5</p> <p><b>Social/collective values</b></p>

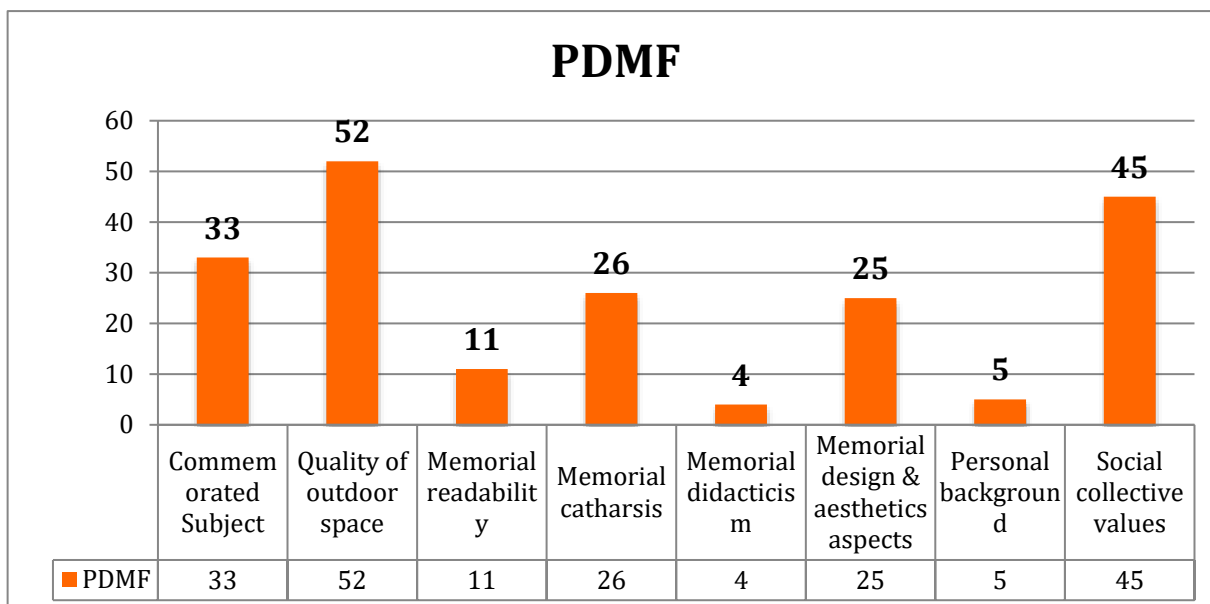


### 5.2.2.5. Key findings

Based on the frequencies of responses to the open-ended questions from the three case studies, they have been classified into eight categories:

1-Commemorated subject; 2-Quality of outdoor space; 3-Memorial readability; 4-Memorial catharsis; 5-Memorial didacticism; 6-Memorial design and aesthetics; 7-Cultural and geographical background (described in methodological framework as internal representation); 8-Social collective values.

Tables 5.22, 5.23 and 5.24 and Graph 5.43 present the results of the PDMF responses; they show that the most frequently mentioned aspect of memorial is the quality of memorial outdoor space (52), and the least mentioned is memorial didacticism. This highlights the fact that this memorial is highly appreciated as a nice outdoor space rather than a restrictive memorial site. Social collective values come second (45), and are generally related to the site's popularity among families and children. PDMF is very popular and important because of people's loving memories for Princess Diana (33).

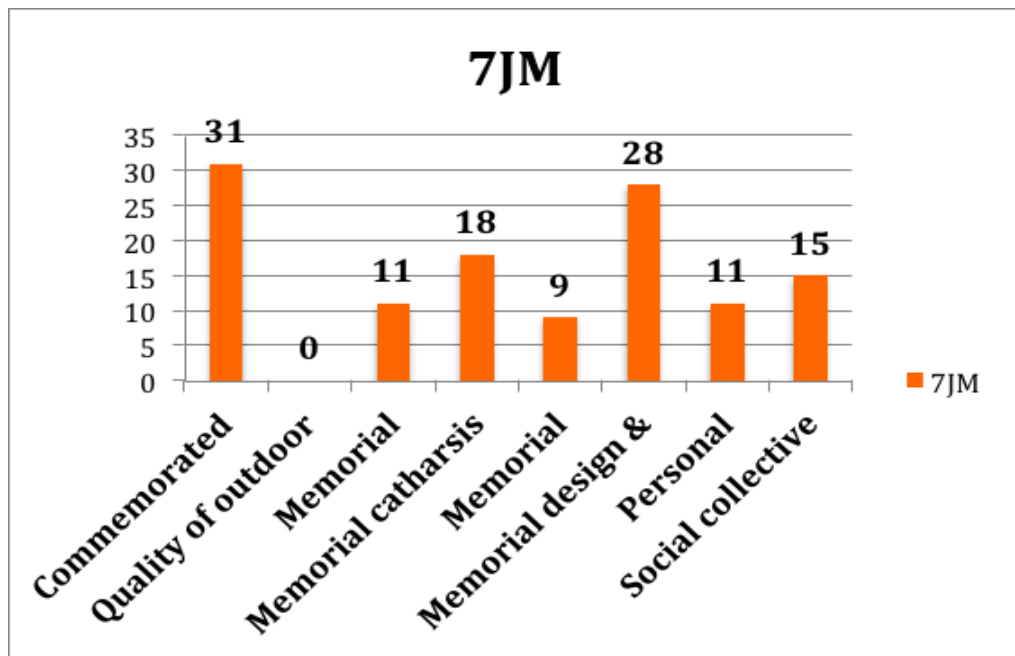


Graph 5.40: PDMF qualitative responses categories

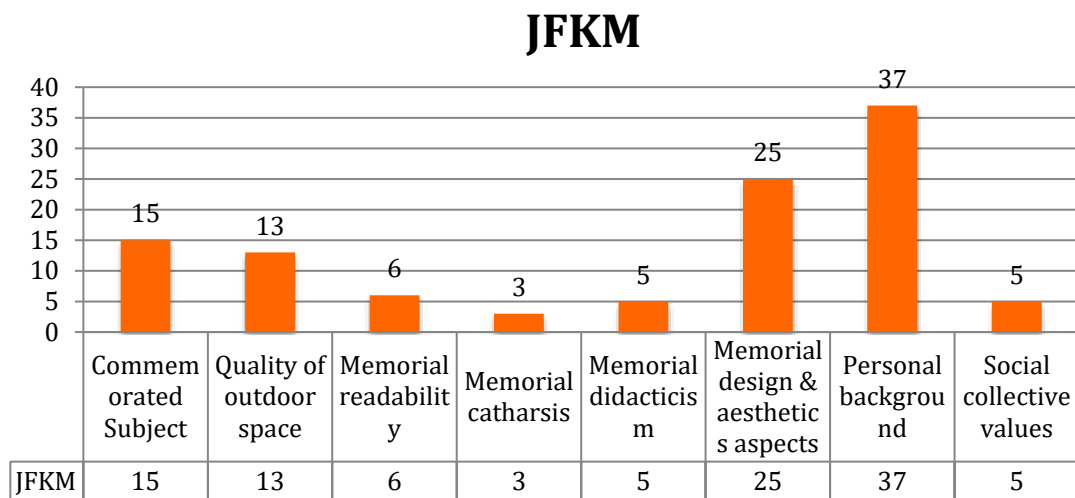
At the 7JM memorial site, the most important aspect for visitors is the commemorated subject, which is the 7<sup>th</sup> July London bombings (31). Memorial design and aesthetics come second (28). 7JM has a distinctive well-articulated design approach, compacted within a small plot. The least mentioned aspects of the memorial design are the

quality of outdoor space (0) and memorial didacticism (9). The memorial cathartic quality comes in third with a frequency of (18). Visitors' responses relating to personal background and memorial readability are not highly frequent (11). See Tables 5.25, 5.26 and 5.27 and Graph 5.44.

In their responses, JFKM's visitors give priority to cultural, geographical and political background and the way this affects their visiting experience, with a frequency of (38). Memorial design and aesthetics come second, receiving (25) responses. The visitors also mentioned the importance of building a memorial for President John F. Kennedy (15) and the beautiful outdoor memorial setting in relation to the success of their experiences (13). See Tables 5.28, 5.29 and 5.30 and Graph 5.45.



Graph 5.41: 7JM qualitative responses categories



Graph 5.42: JFKM qualitative responses categories

### 5.3. Analysis and results of behavioural observation of the three case study sites<sup>45</sup>

#### 5.3.1. Introduction

This section presents the findings of the behavioural mapping of the three case study sites, and the juxtaposition of the usage patterns with the spatial properties of the memorials. Analysis of on-site data includes comparing the behaviour of the users of different gender at various behavioural settings at different times in order to explore the interrelations of users' behaviour and the environment (Cosco et al., 2010). As explained by Robert and Barbara Sommer, this method can be based on specific setting (place-centred behavioural mapping), or the movements of people (individual-centred behavioural mapping) (2001). This current study embraced the first method and recorded people's behaviour at predetermined settings and time windows.

<sup>45</sup> This study observation process was adapted from two studies:

- Unt, A. L. and Bell, S. (2013) *The impact of small scale design interventions on the behaviour patterns of the users of an urban wasteland*. Urban Forestry & Urban Greeting.
- Hussein, H. (2009) *Therapeutic Intervention: Using Sensory Gardens to Enhance the Quality of Life for Children with Special Needs*. A thesis submitted for the degree of Doctor of Philosophy, Edinburgh University.

### 5.3.2. Observation process

Prior to behavioural mapping, this method also includes design conceptual background in addition to the analysis of the spatial properties of the memorials and their site boundaries, which are presented in Chapter Four. Observation was carried out in the summer of 2010, because it is the high season for outdoor usage in the UK, with the lowest possible interaction with the sites' users. Notes and photographs were taken during initial site visits in the month of June 2009. The date, time and weather conditions of the day of observation were recorded on the maps.

The observer's position was the centre of the fountain of PDMF, with 360-degree views, covering the whole site. At 7JM, observation took place from the adjacent bench, and at JFKM, the observer followed each individual/group from the entrance until they left the site, due to the linearity of the site. For PDMF and 7JM, the days of observation were the 14<sup>th</sup>, 15<sup>th</sup>, 16<sup>th</sup> and 17<sup>th</sup> of July 2010. Observation of PDMF was carried out in the afternoon between 1:30pm and 4pm, while observation of 7JM was in the morning between 10:30am and 1pm. Each period was divided into blocks of 30 minutes with a 5-10 minute break in between to swap maps and start the next session of observation. In the case

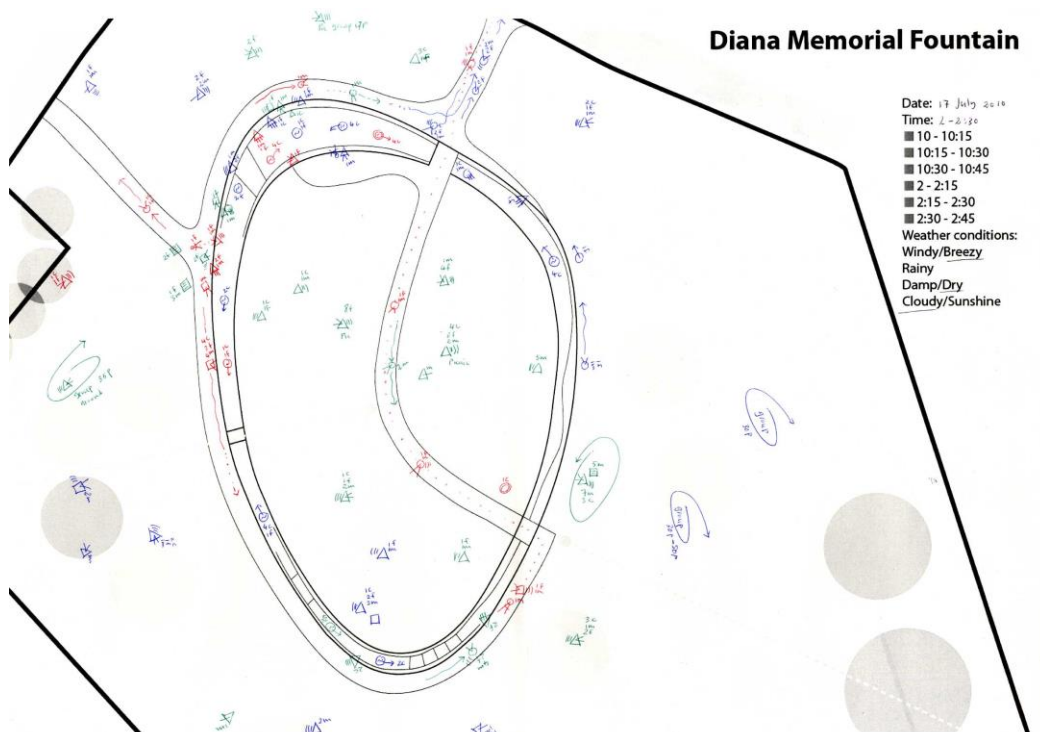


Figure 5.1: One episode of PDMF observation mapping

study of JFKM, observation was carried out between 12pm and 6pm, as the morning was spent traveling from London city centre to the site at Runnymede. The final results were 14 mapping episodes for each case study (see Figure 5.1 for an example, and the appendix for all observation maps).

Activity types were generated based on the pilot study and preliminary site visits in 2009, and precedent observation mapping studies. Three gender/age groups were distinguished: men, women (both groups over 15 years old) and children (under 15 years old). The total number of activities recorded on maps is 16, presented in Figure 5.2.

	Symbol	Male	Femel	Children		Symbol	Male	Femel	Children
Standing & Observing					Strolling & Observing				
Sitting & Observing					Lying down				
Placing tributes					Touching				
Running					Steps				
Standing & Talking					Strolling & talking				
Sitting & talking					Playing				
Reading					Playing with water				
Running in water					Taking photos				

Figure 5.2: Behavioural mapping activity symbols

### 5.3.3. Behavioural mapping analysis results

The measures undertaken to address the method of behavioural mapping and the engagement of users with behavioural settings at memorial landscape mainly include:

- Affordances: these refer to the number of main activities that most frequently occurred in each element of the memorial landscape during the observation period.

- Behaviour settings: These are the different memorial design elements that users engaged with, and can be referred to as hard landscape (for example, hard surfaces, memorial stones or columns, plaques, water features); soft landscape (plants and grass areas); and landscape furniture or seating that users have played with, encountered or visited during the observation period.
- Gender/age groups: These include adult males, adult females and children under 15. The reason for this categorisation is the ease of observing behaviours and counting activities at the most crowded times, particularly at PDMF.

The behavioural observation data shows the relationship between the behavioural settings/ memorial design elements, actualised affordances and the number of users from each gender group. Each design element can offer either a unique affordance, which means a single opportunity of activity engaged in by users, or multiple affordances, meaning multiple opportunities of activities engaged in by users in that specific setting.

#### *5.3.3.1. Princess Diana Memorial Fountain (PDMF)*

An example of an observation map on 16<sup>th</sup> July 2010 is presented in Figure 5.3. It covers the observation between 2:30pm and 3pm. The day was cloudy and windy with moderate temperature. The map shows the number of affordances, not the number of users. Each user can be engaged in more than one activity at a specific memorial element, such as playing with water while taking photos.

The total number of affordances in this episode was 173. 31 affordances were related to moving-through activities such as strolling and observing, 71 were related to passive activities, mainly picnicking, and 71 affordances occurred in and around the fountain. There were a large group of around 18 tourists occupying the northeast corner of the grass area around the fountain ring, and another two smaller groups of four and five local people sitting on the northeast and south grass areas. The 71 affordances at the water feature include playing in the water, running in the water, taking photos, touching and sitting along the fountain edges. There were 10 female users and three male users reading the description plaque at the east and north entrances to the memorial (see Figure 5.4).

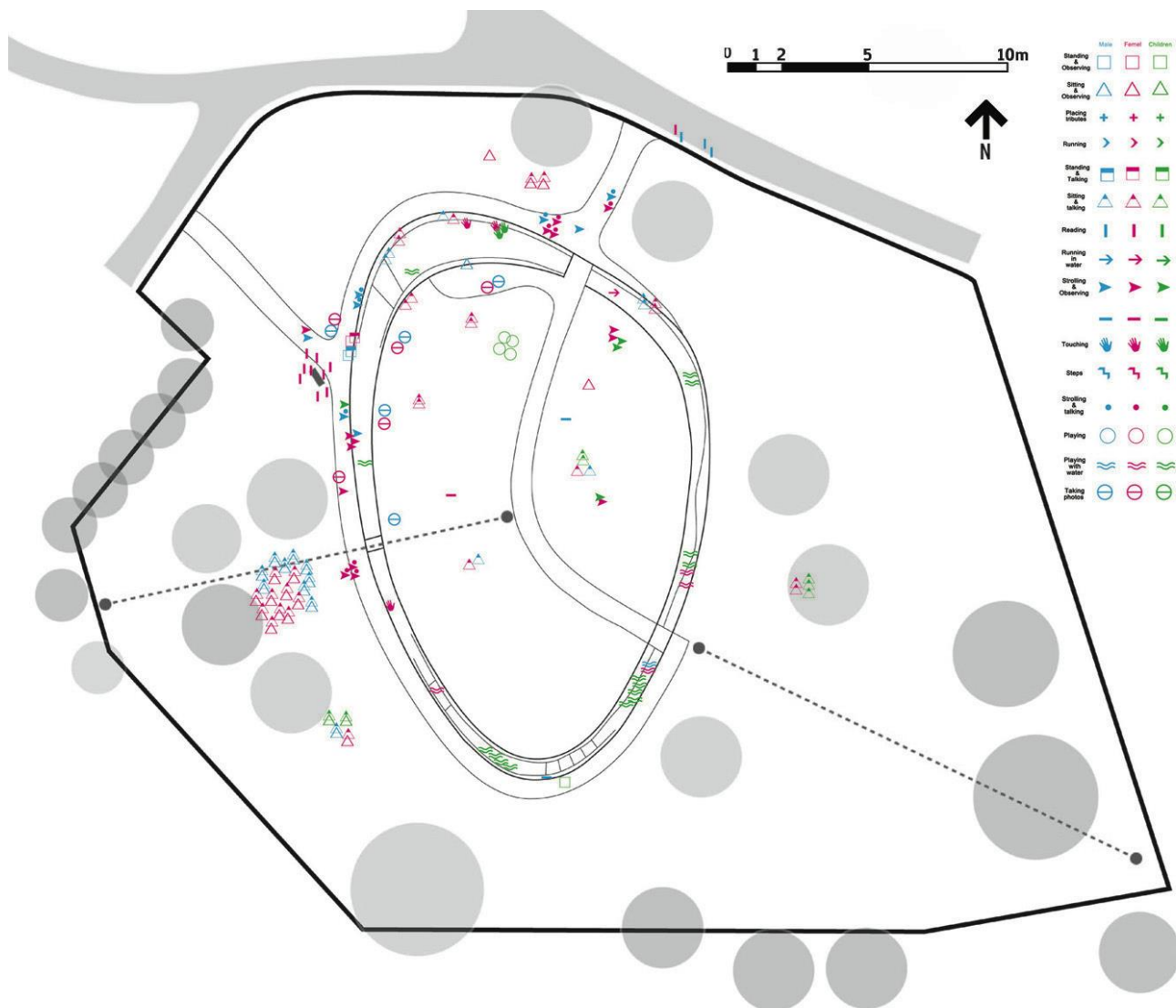
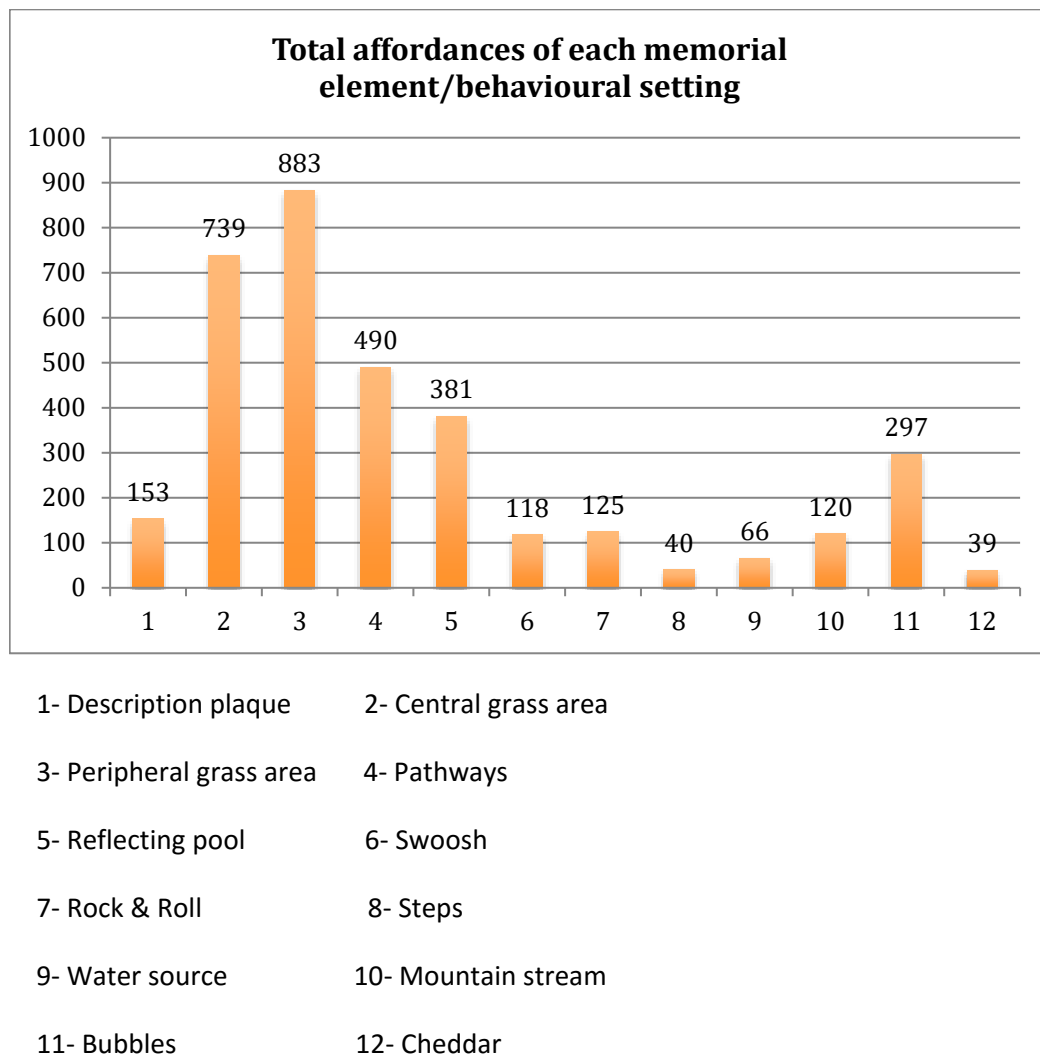


Figure 5.3: An episode from the 16<sup>th</sup> July 2010 observation map

### *Memorial patterns of use based on affordances and behavioural settings*

When all 14 episodes were combined, clear patterns of use emerged (Figure 5.4). The most heavily used memorial element was the *peripheral & central grass areas*, with total affordances of 1622, which were mainly used as an open green space for picnics. The activities mostly carried out by the users at these areas were *sitting & talking & observing* by females (610) and *sitting & talking & observing* by males (443). The second most occupied area was the *pathways*, with 460 affordances (*strolling & observing & talking* by females (189), *strolling & observing & talking* by males (133)). The third most

occupied area was the reflecting pool at the bottom of the fountain (total affordances 381). The main activities in which users engaged at this specific setting were *playing with water* by children (32), *touching water* by females (25), *taking photos* by females (18) and *running around* by children (14).



Graph 5.43: Total affordances for each memorial design element



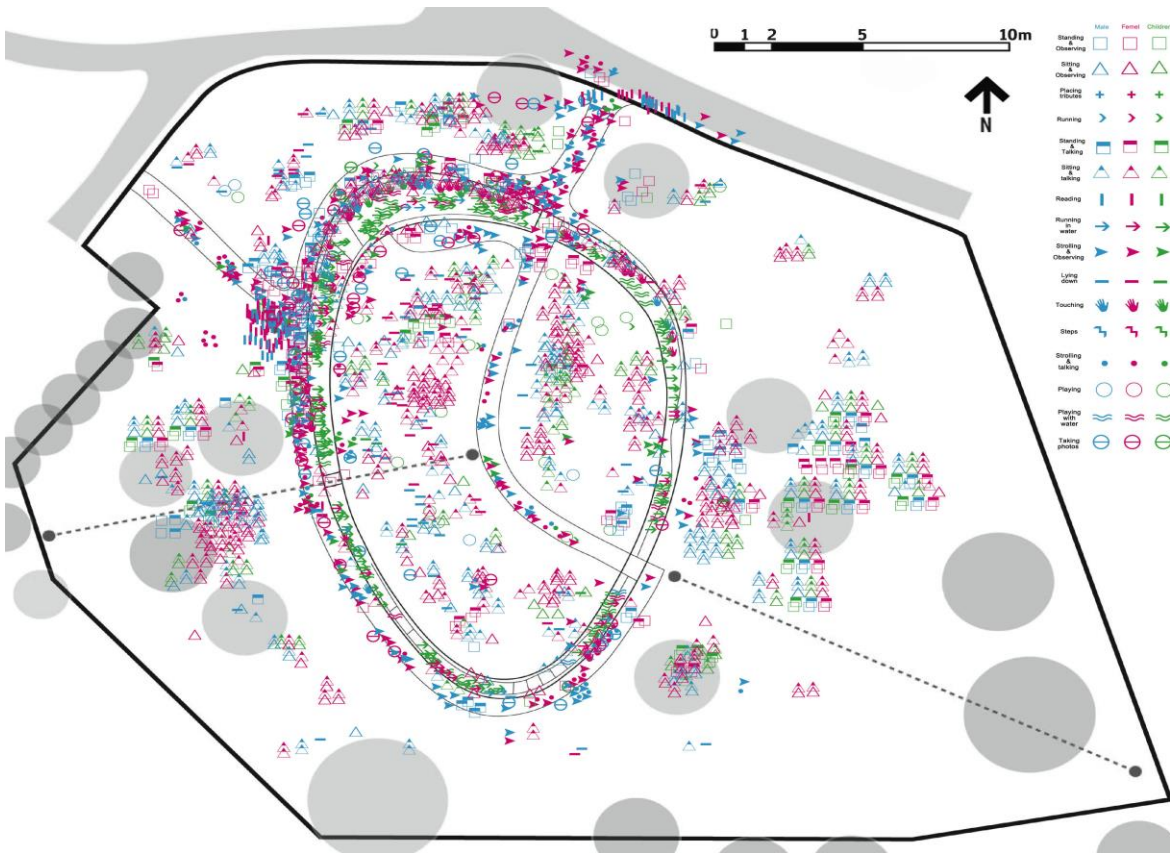


Figure 5.4: Composite map with site properties

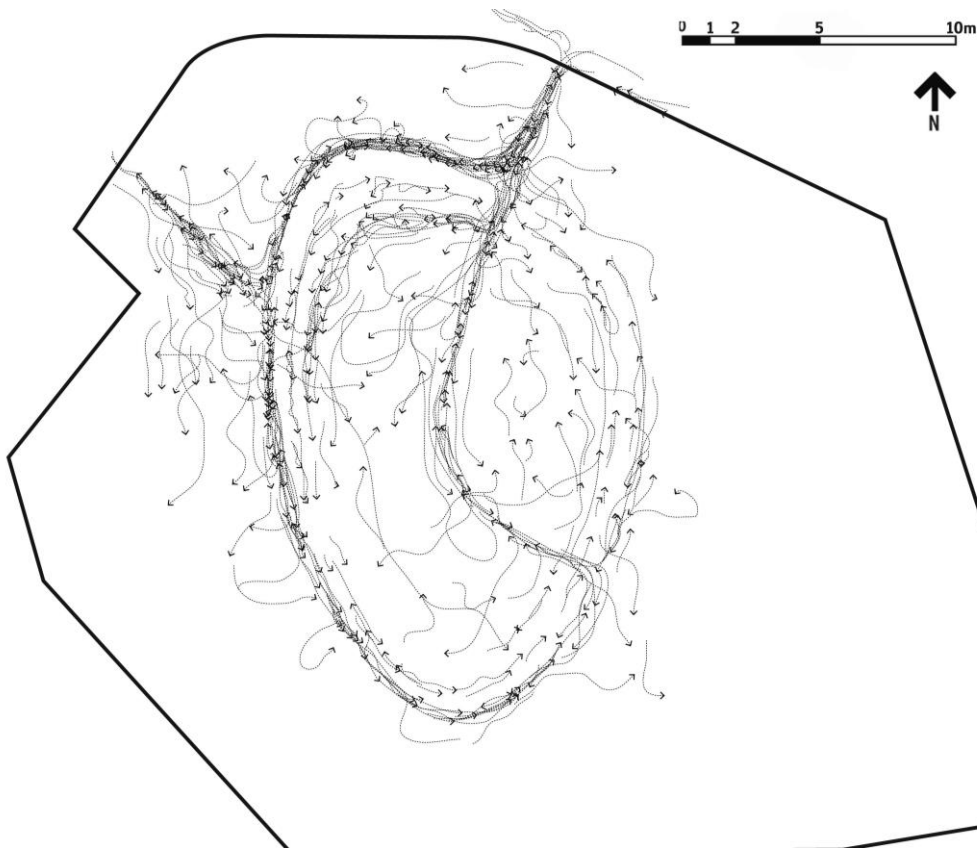


Figure 5.5: Users' motion

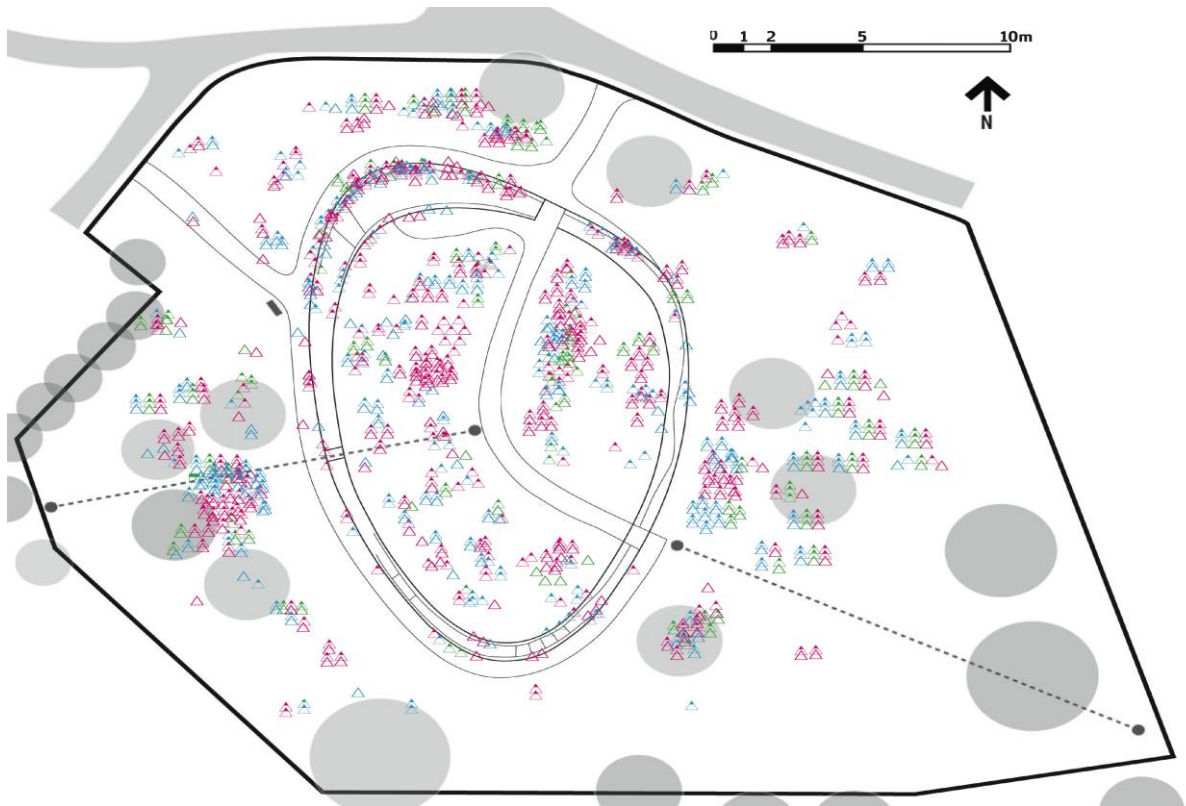


Figure 5.6: *Sitting & talking* and *sitting & observing* affordances map

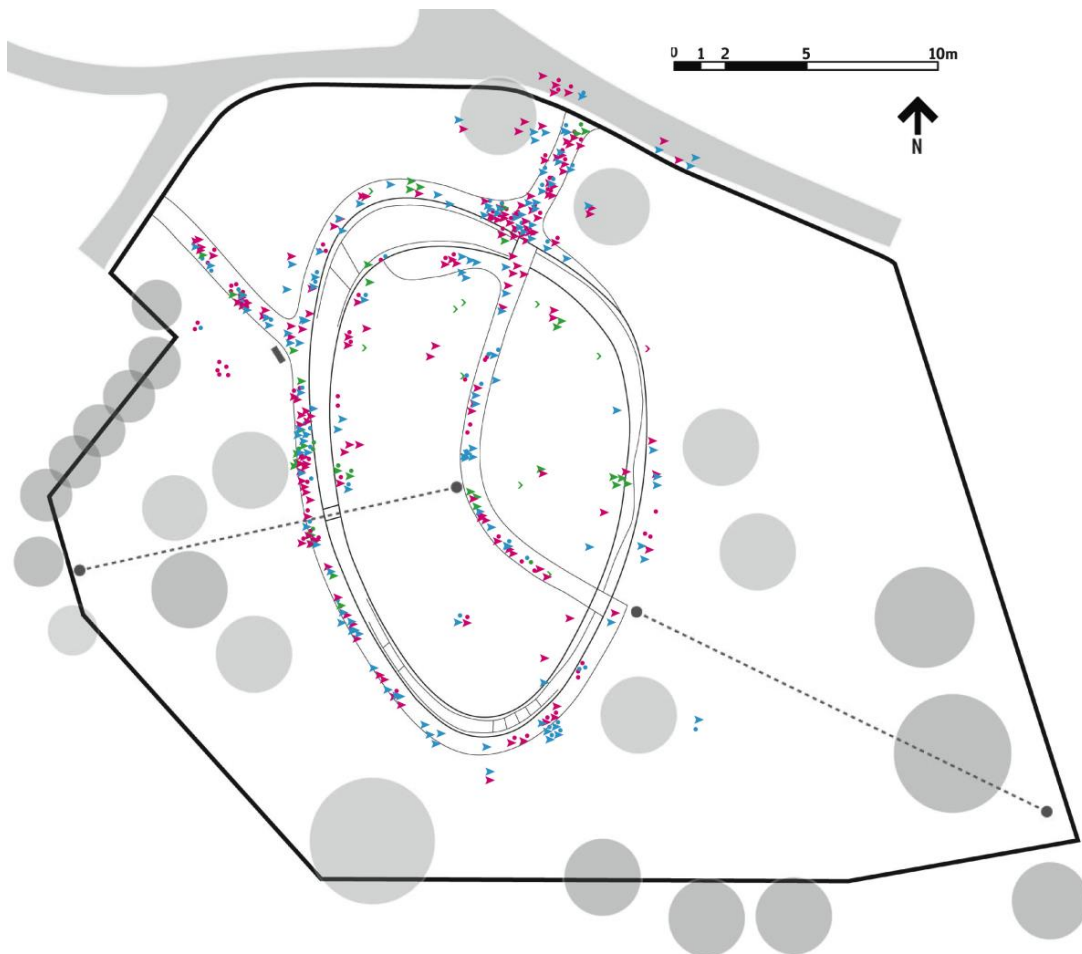


Figure 5.7: *Strolling & talking* and *strolling & observing* affordances map

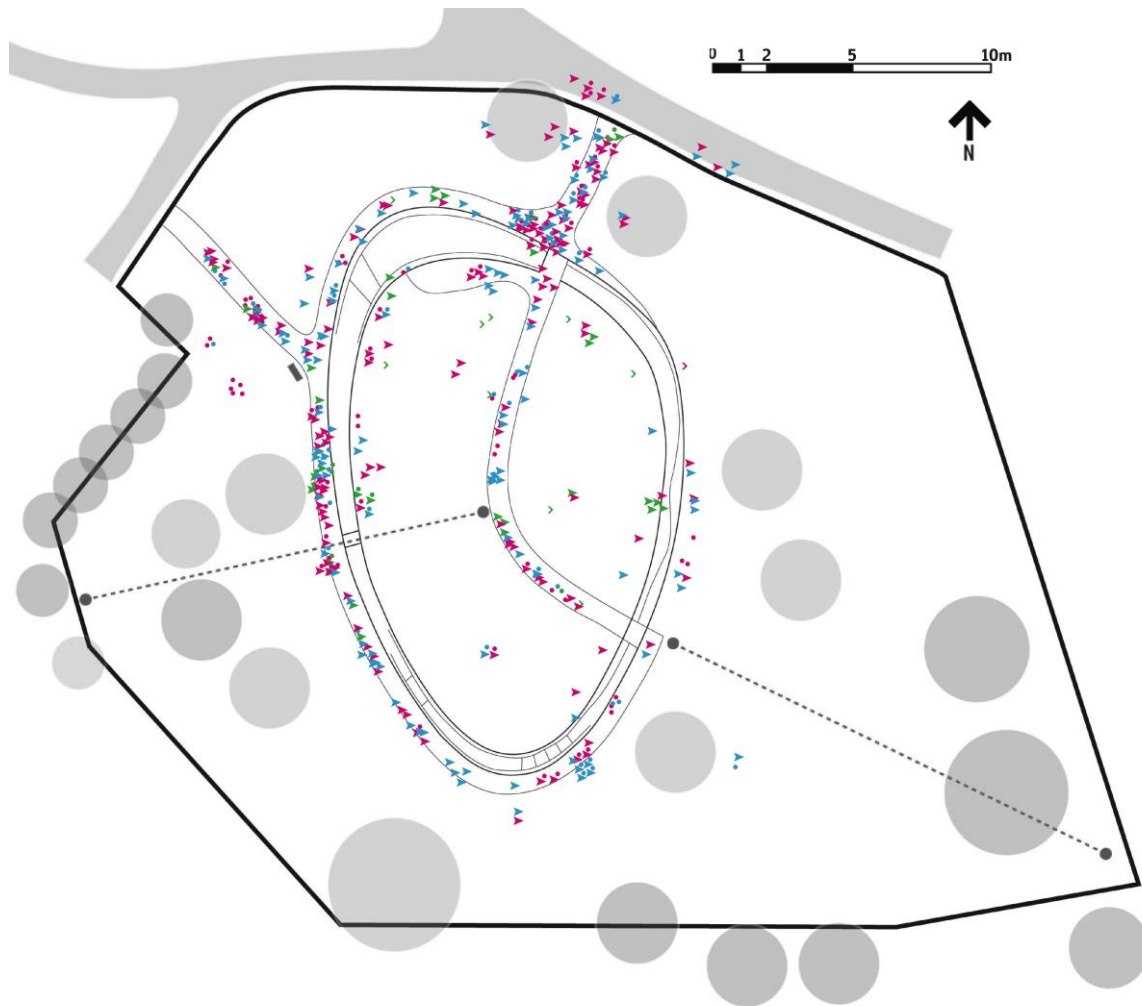
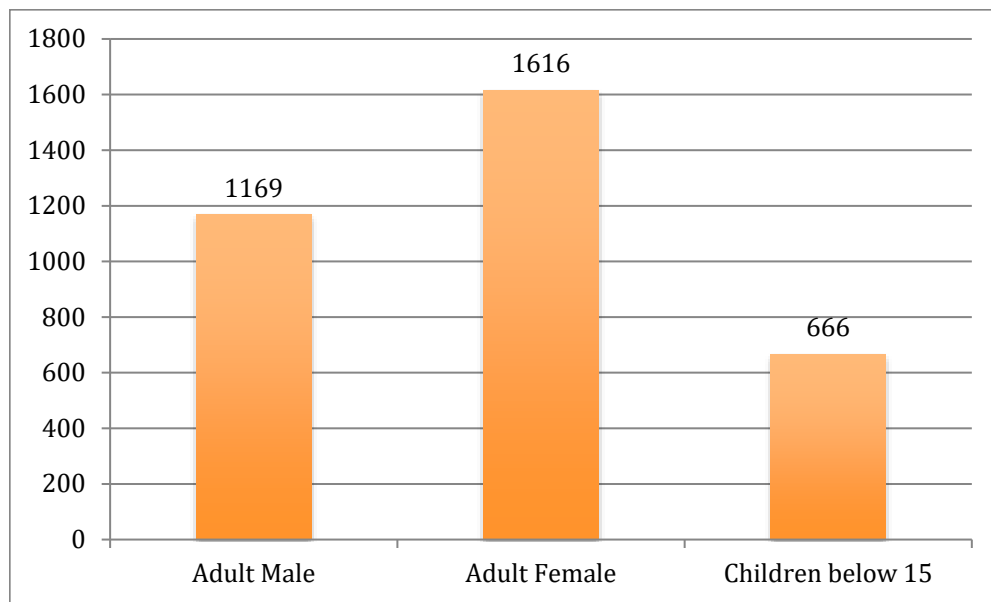


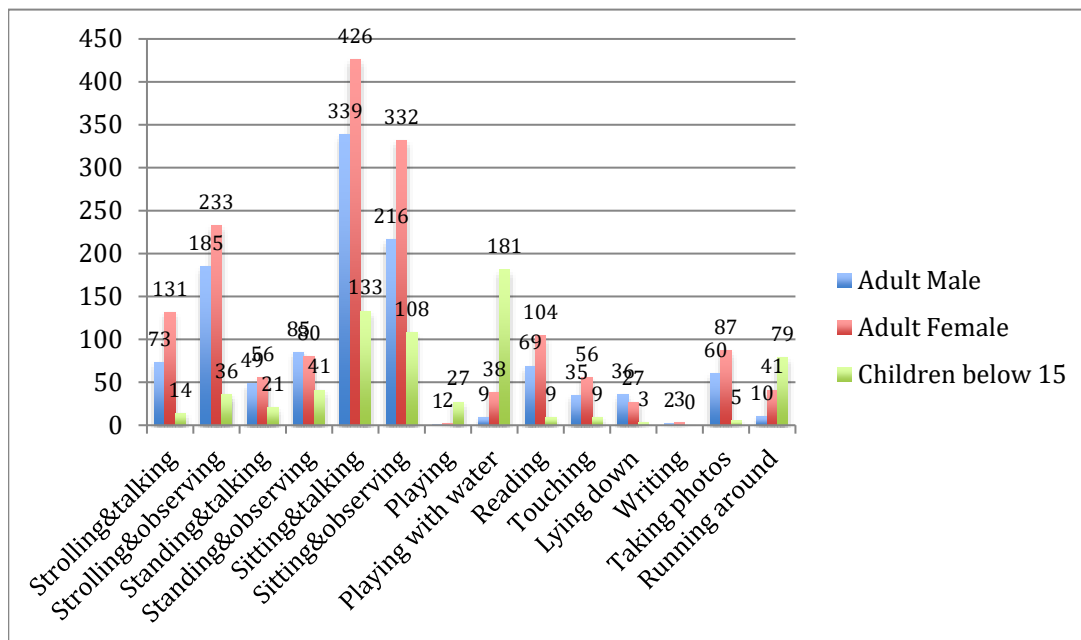
Figure 5.8: Affordances of *playing with water*, *running in water*, *touching water* and *taking photos* (fountain-related activities)

*Variation among gender/age groups*

Graph 5.44: Variation of affordances among gender/age groups

The result of the observation showed that adult females were the largest gender/age group. It counted for 1616 affordances. The adult males engaged in 1169 affordances, and children 666 affordances (Graph 5.44). The dominant activity by men was *sitting & talking* (339); they mainly used the site for family picnics around the grassy areas. In addition to these activities, women were more active than men in *playing with water* (38 to 9 when compared to men), *strolling* (364 to 258 when compared to men), *touching water* (56 to 35 when compared to men) and *running around* (41 to 10 when compared to men).

The activities with which children were more engaged than adults were *playing with water* (181), *playing* (27) and *running around* (79). The children's activities were generally centred on the water feature, which was the focus of family users (Graph 5.45).



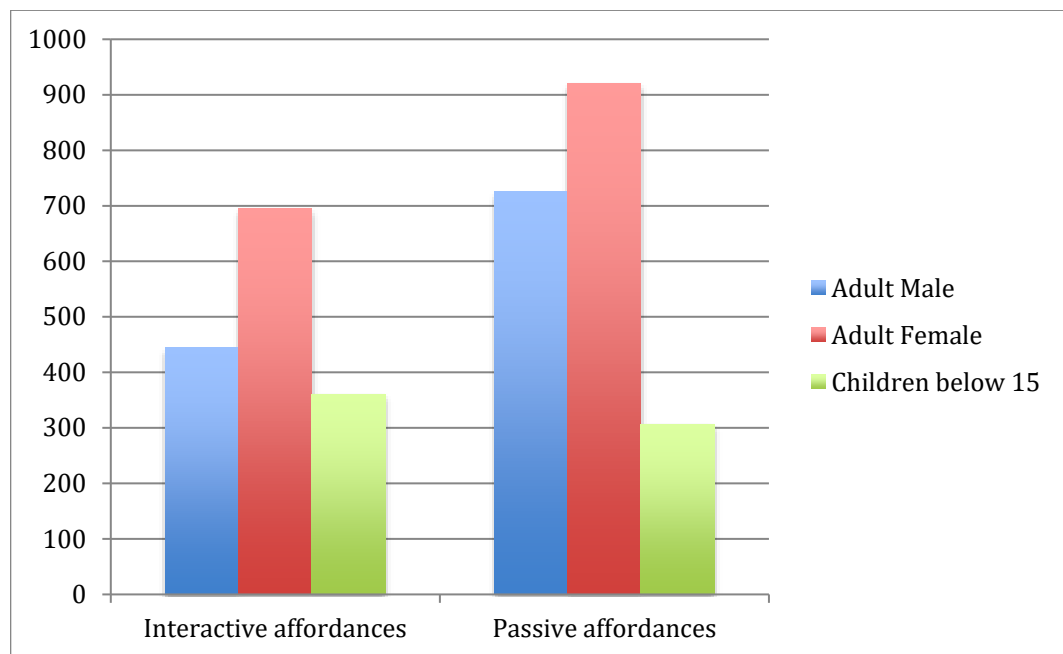
Graph 5.45: Variation of affordances among gender/age groups

#### *Variation among active and passive users*

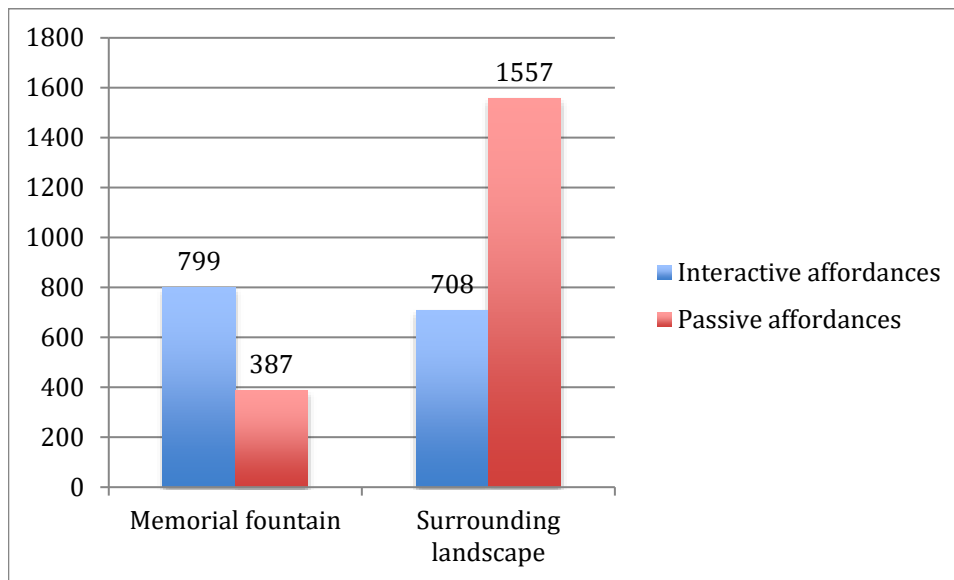
The observation episodes present 16 different activities, which can be classified into two categories: interactive and passive. In the memorial context, interactive affordances are defined by the researcher as those that involve navigation, interaction or engagement with memorial features. The interactive category includes: *strolling & talking*, *strolling & observing*, *playing*, *playing with water*, *running around*, *running in water*, *reading*, *writing* and *placing tributes*. The passive category includes: *sitting & talking*, *sitting & observing*, *standing & talking*, *standing & observing* and *lying down*. The researcher considered *reading* and *writing* active uses as they involve engaging with memorial features.

Table 5.31: Interactive and passive affordances

Interactive affordances	Passive affordances
Strolling & talking	Sitting & talking
Strolling & observing	Sitting and observing
Playing	Standing & talking
Playing with water	Standing & observing
Running around	Lying down
Running in the water	
Reading	
Writing	
Taking photos	
Placing tributes	
Climbing steps	



Graph 5.46: Interactive and passive affordances in relation to gender/age groups



Graph 5.47: Interactive and passive affordances in relation to behavioural settings



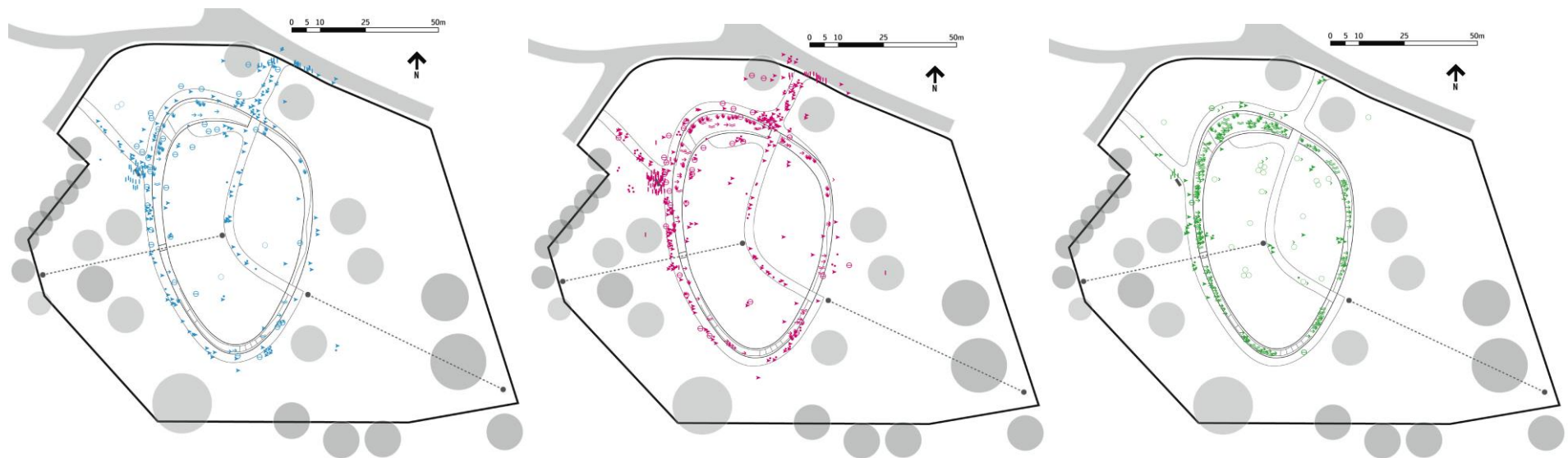


Figure 5.9: Interactive users. From left to right: adult males, adult females and children



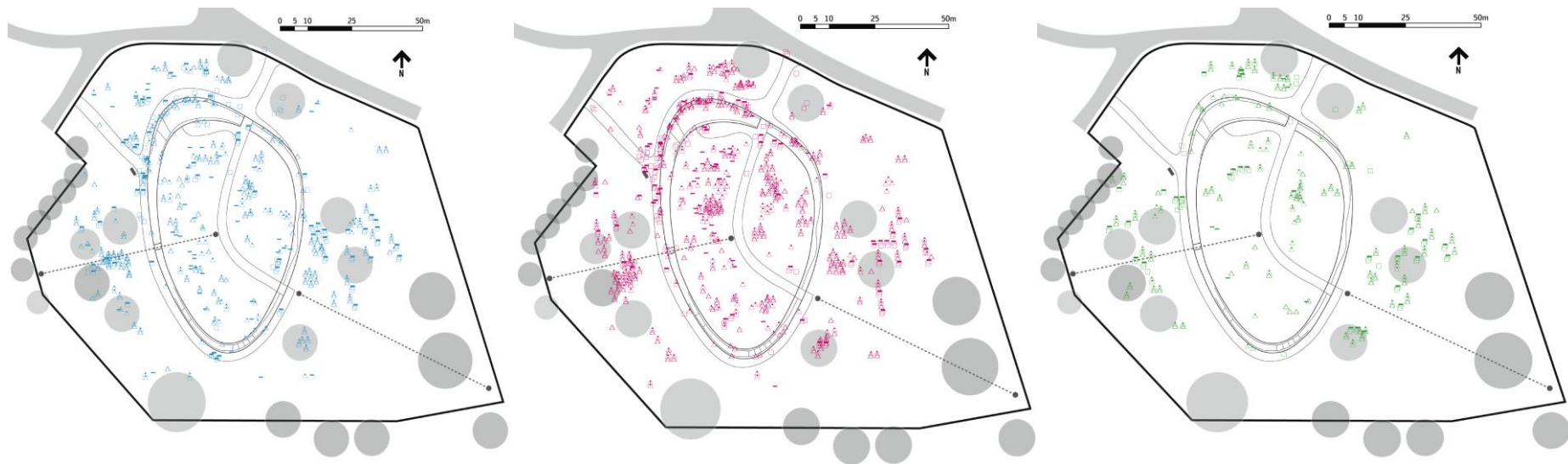


Figure 5.10: Passive users. From left to right: adult males, adult females and children

### 5.3.3.2. 7<sup>th</sup> July Memorial (7JM)

An example of an observation map on 14<sup>th</sup> July 2010 is presented in Figure 5.11. It covers the observation between 12:15pm and 12:45pm. The day was breezy, dry and cloudy with moderate temperature. The map shows the number of affordances, not the number of users. Each user can be engaged in more than one activity at a specific memorial element, such as touching while standing or talking.

The total number of affordances in this episode was 107. 22 affordances were related to reading the description plaque, 25 were related to strolling and talking, 34 strolling and observing, 4 touching memorial columns, 14 taking photos, 12 playing around the memorial and 16 standing and observing. The users were mainly a large group of tourists that gathered around the description plaque before wandering around the memorial columns taking photos.

*Memorial patterns of use based on affordances and behavioural settings*

Figure 5.12 shows the patterns of use after all observation maps are combined. The

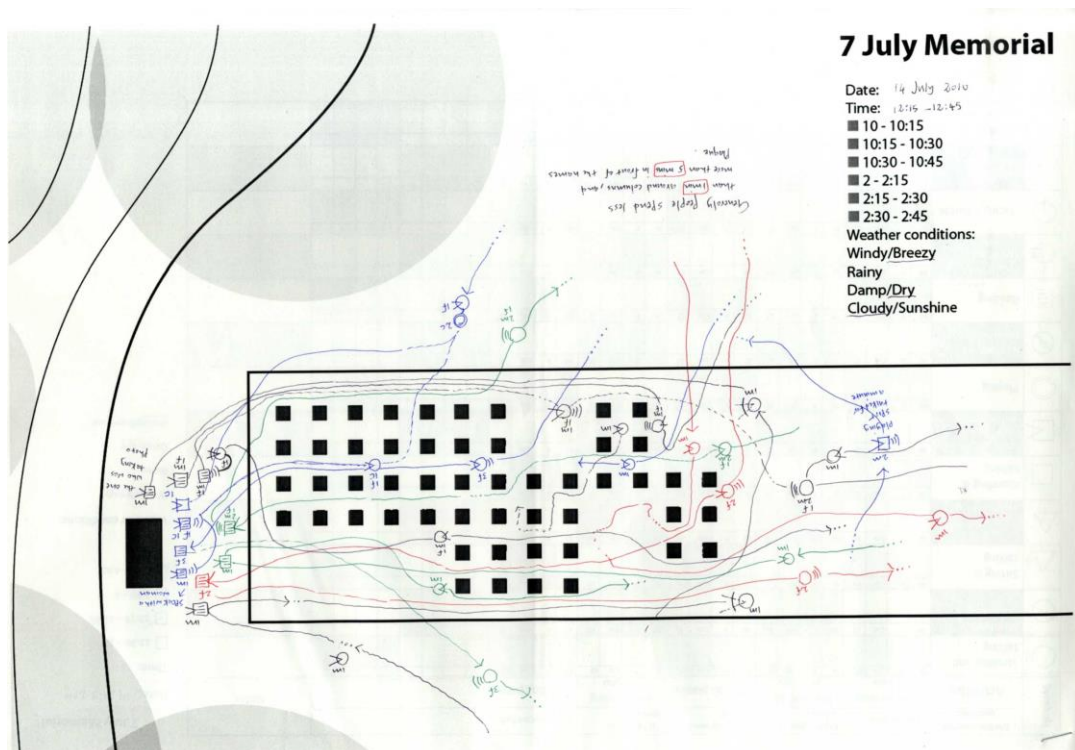
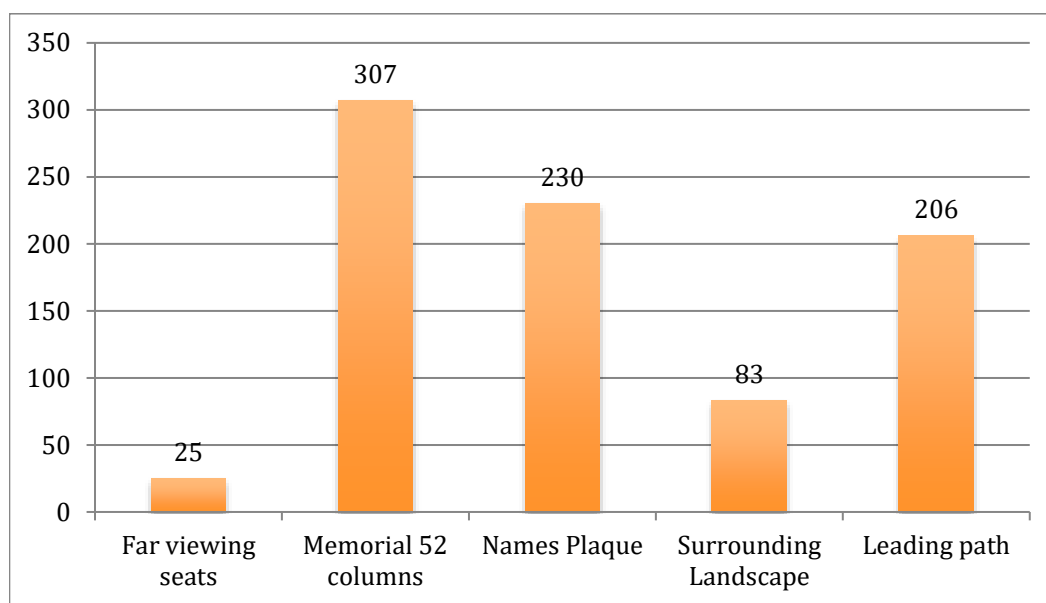


Figure 5.11: One episode of 7JM observation mapping  
most heavily used memorial element was the *memorial columns* with 306 total affordances. At this memorial setting, users were mainly wandering around and touching the columns. The activities mostly carried out by the users at this area were

*strolling & talking* (65), *strolling & observing* (176), *standing & talking* (8), *standing & observing* (7), *reading* (12), *touching* (29) and *taking photos* (7). The second most occupied area was the *names plaque*, with 250 affordances (*reading* (100), *standing & talking* (10), *standing & observing* (24), *strolling & talking* (44), *taking photos* (7), *placing tributes* (19) and *writing* (5)). The third most used area was the *leading path* to the memorial (total affordances 206). The main activities with which users engaged at this specific setting were *strolling & talking* (64), *strolling & observing* (86), *standing & talking* (9), *standing & observing* (13), *touching* (15), *reading* (6), *taking photos* (11) and *writing* (2).



Graph 5.48: Total affordances for each memorial design element

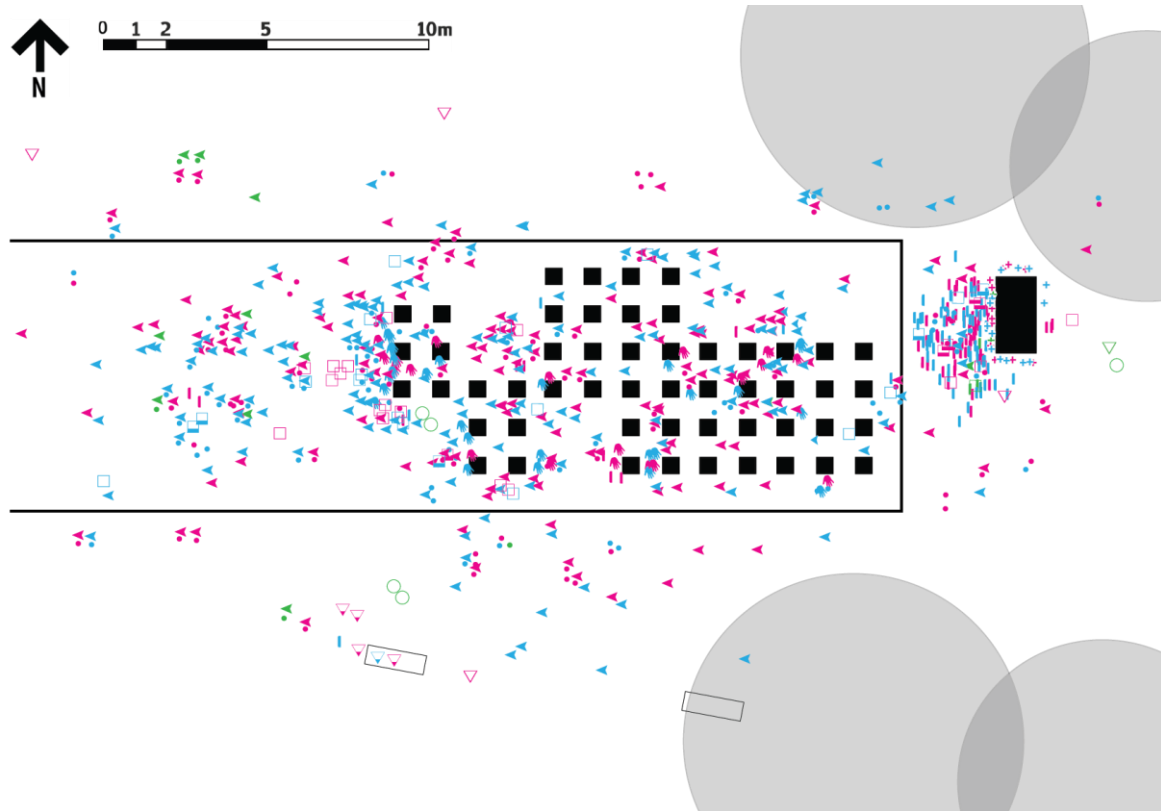


Figure 5.12: 7JM composite map with site properties

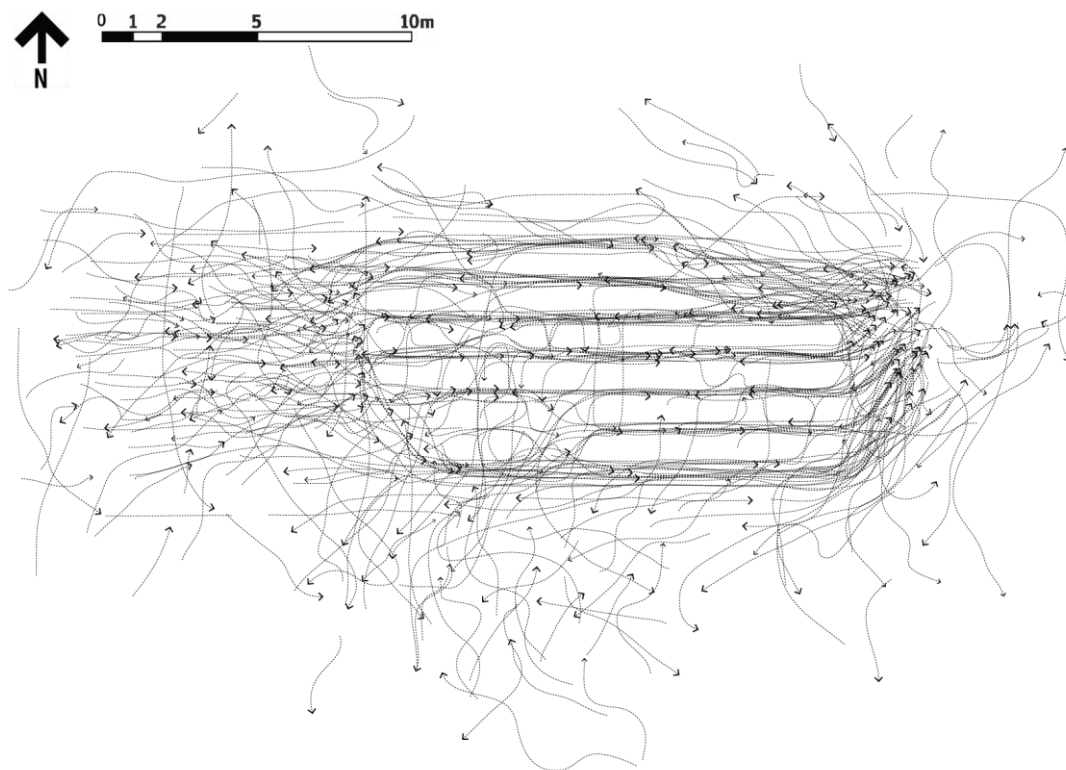


Figure 5.13: Users' motion

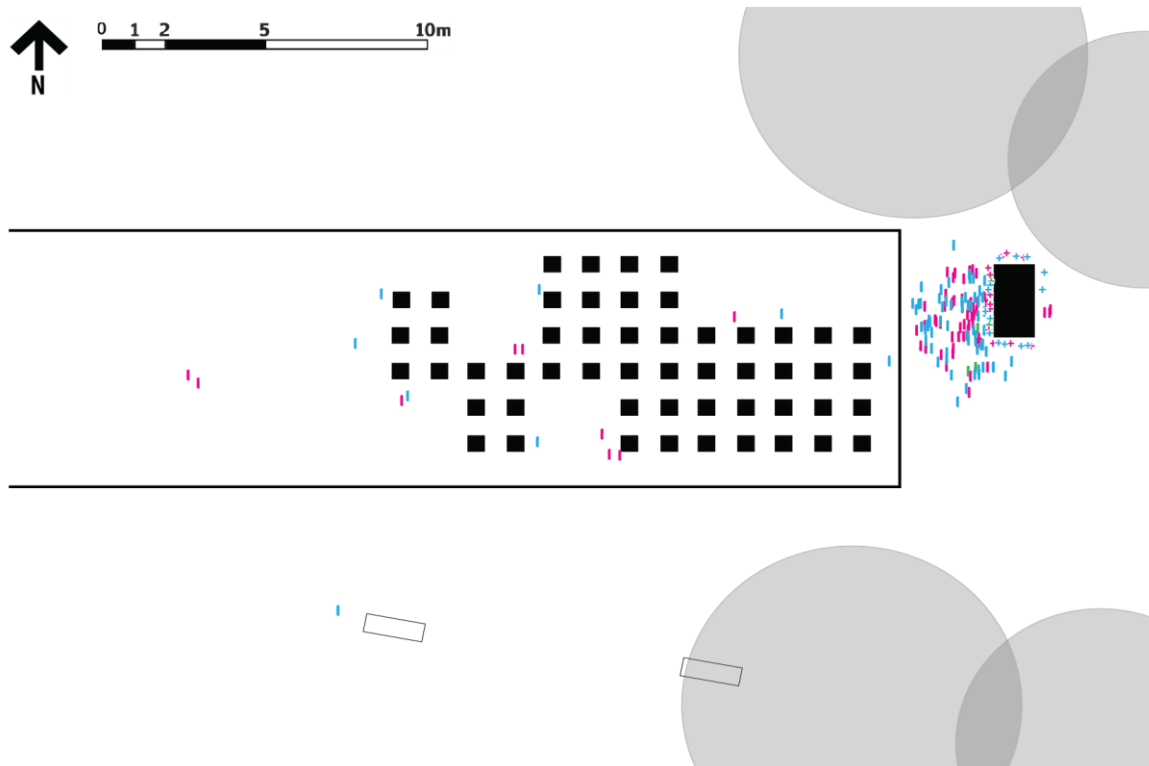


Figure 5.14: 7JM *reading & placing tributes* affordances map

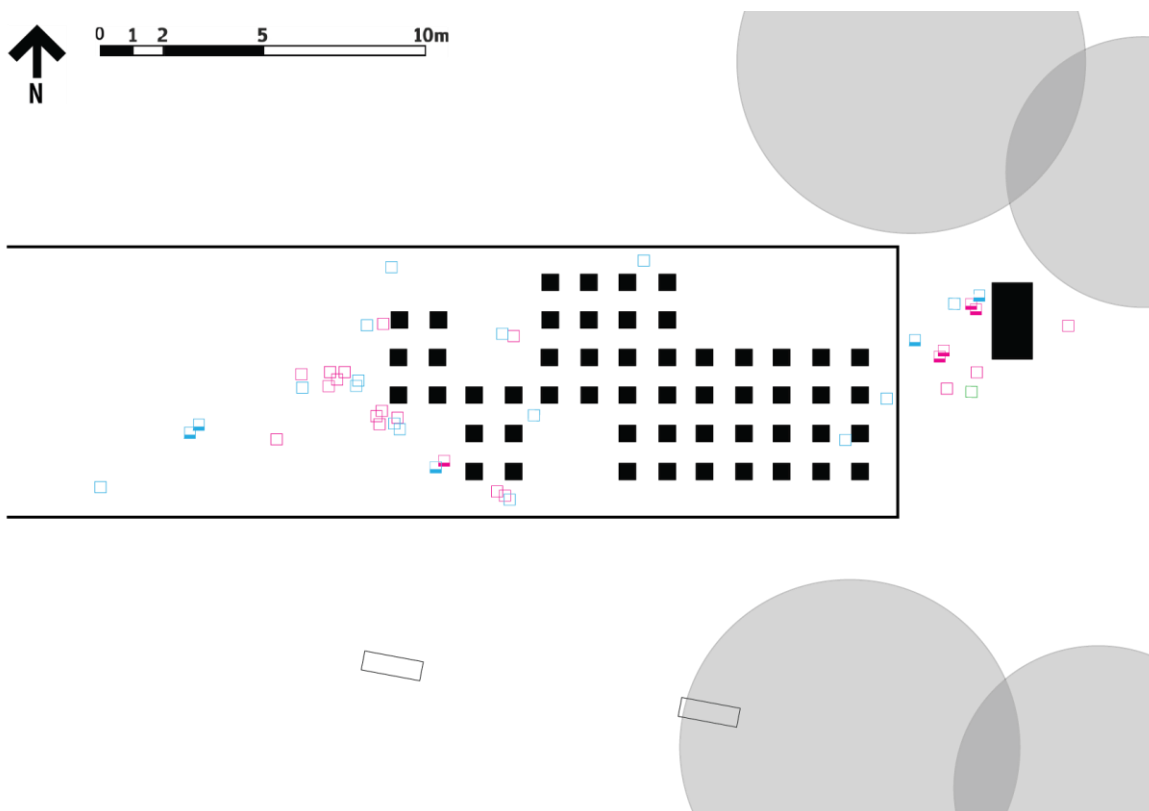


Figure 5.15: *Standing & talking* and *standing & observing* affordances map

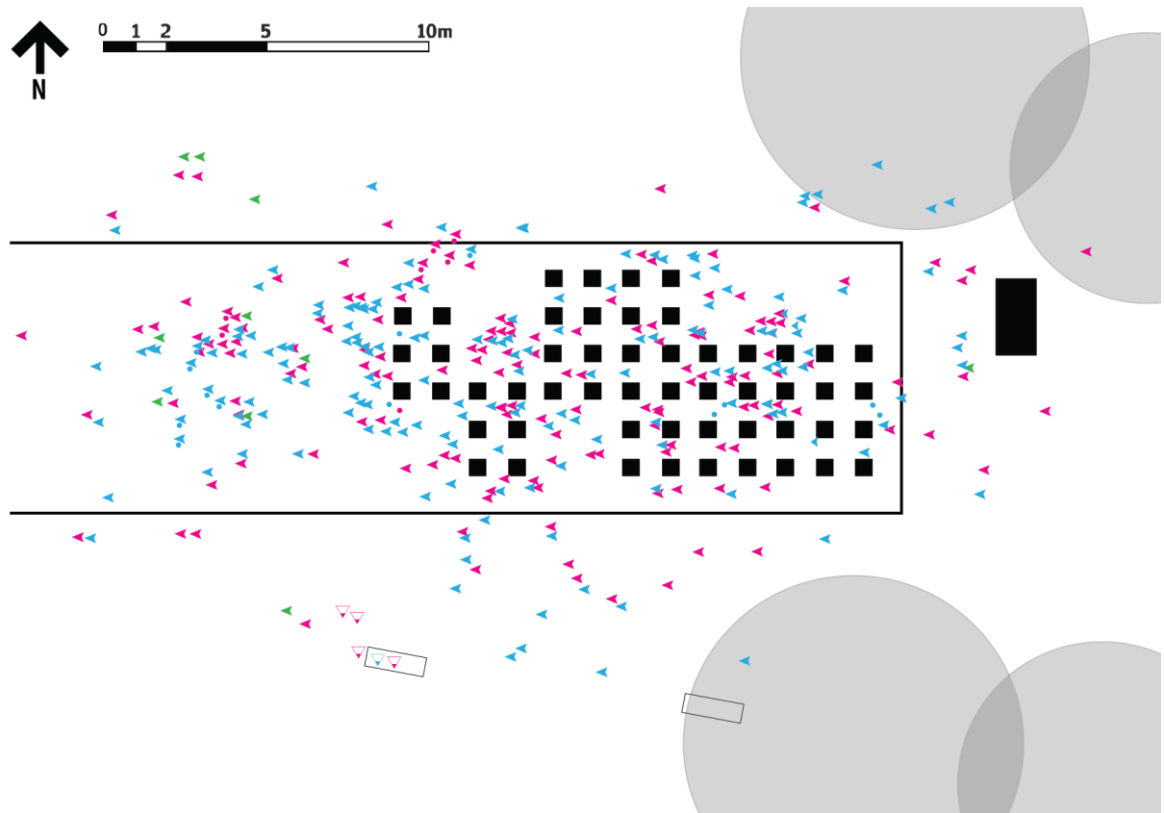
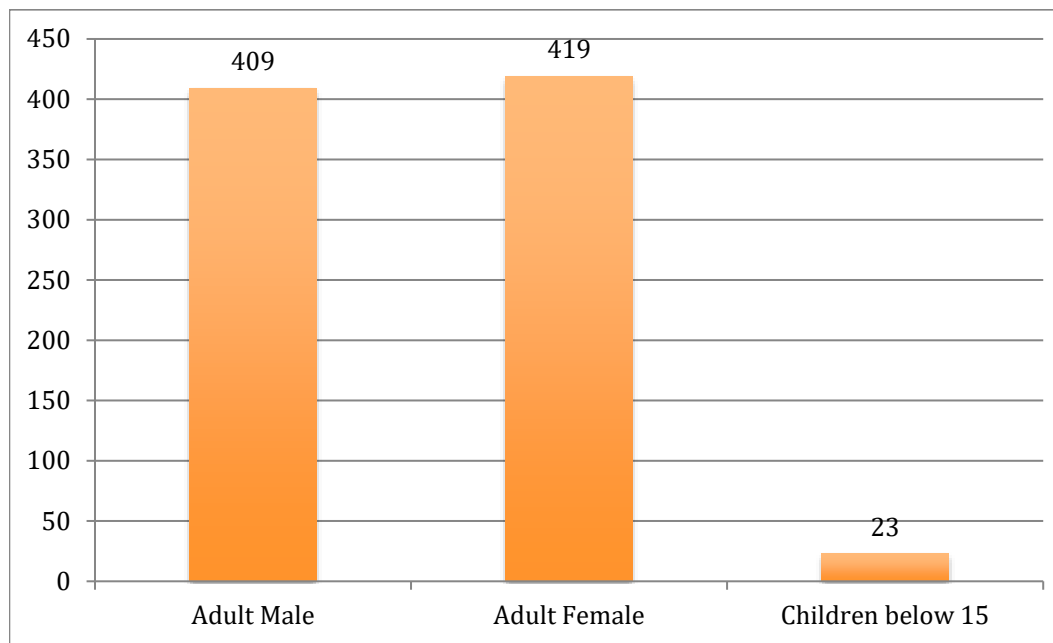
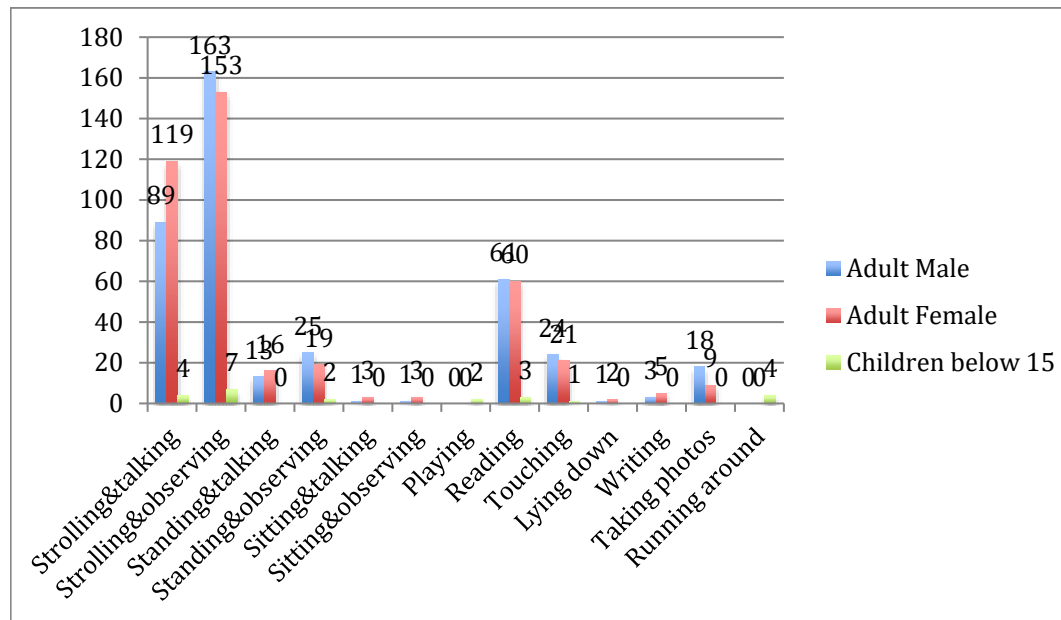


Figure 5.16: *Strolling & talking* and *strolling & observing* affordances map

*Variation among gender/age groups*

Graph 5.49: 7JM gender/age groups

The result of the observation showed that adult females were the largest gender/age group, counting for 419 affordances. Adult males engaged in 409 affordances, and children only 23 affordances (see Graph 5.49). The dominant activities carried out by male users were *strolling & observing* (163 to 153 when compared to women) and *standing & observing* (25 to 19 when compared to women). Female users were more engaged with *strolling & talking* (119 to 89 when compared to men) and *standing & talking* (16 to 13 when compared to men). Affordances mainly occurred around the memorial columns and approaching path. In addition to these activities, male users were more active than female users in *taking photos* (18 to 9 when compared to women). There was no notable difference between men and women in activities such as *reading* (male: 61, female: 60) or *touching* (male: 24, female: 21). The only activities in which children engaged more than adults were *playing* (2) and *running around* (4).

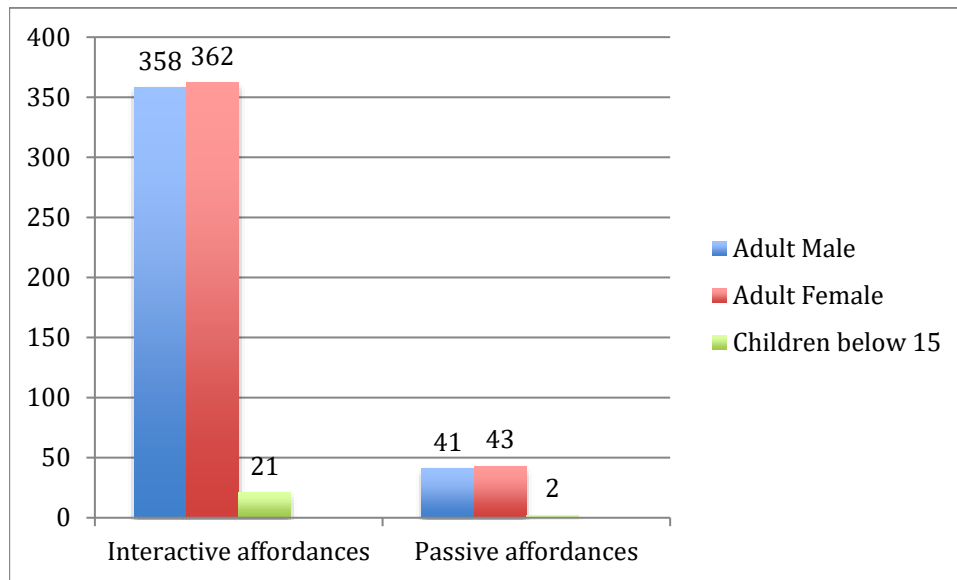


Graph 5.50: 7JM variation of affordances among gender/age groups

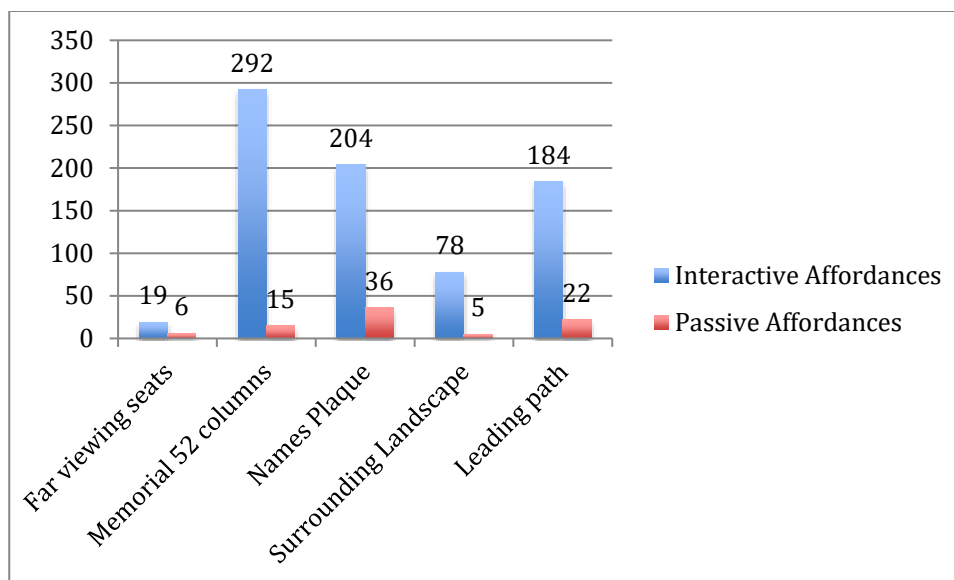
*Variation among active and passive users*

Graph 5.51 and Figures 5.17 and 5.18 show variation of interactive and passive affordances based on gender/age groups. The results present the equality between men and women in relation to the level of engagement with these two types of activities. (Interactive affordances: male 358, female 362. Passive affordances: male 41, female 43). They also show that interactive affordances (777) were much more frequent than passive ones (84) across the whole site.





Graph 5.51: 7JM active and passive affordances in relation to gender/age groups



Graph 5.52: 7JM active and passive affordances in relation to behavioural settings

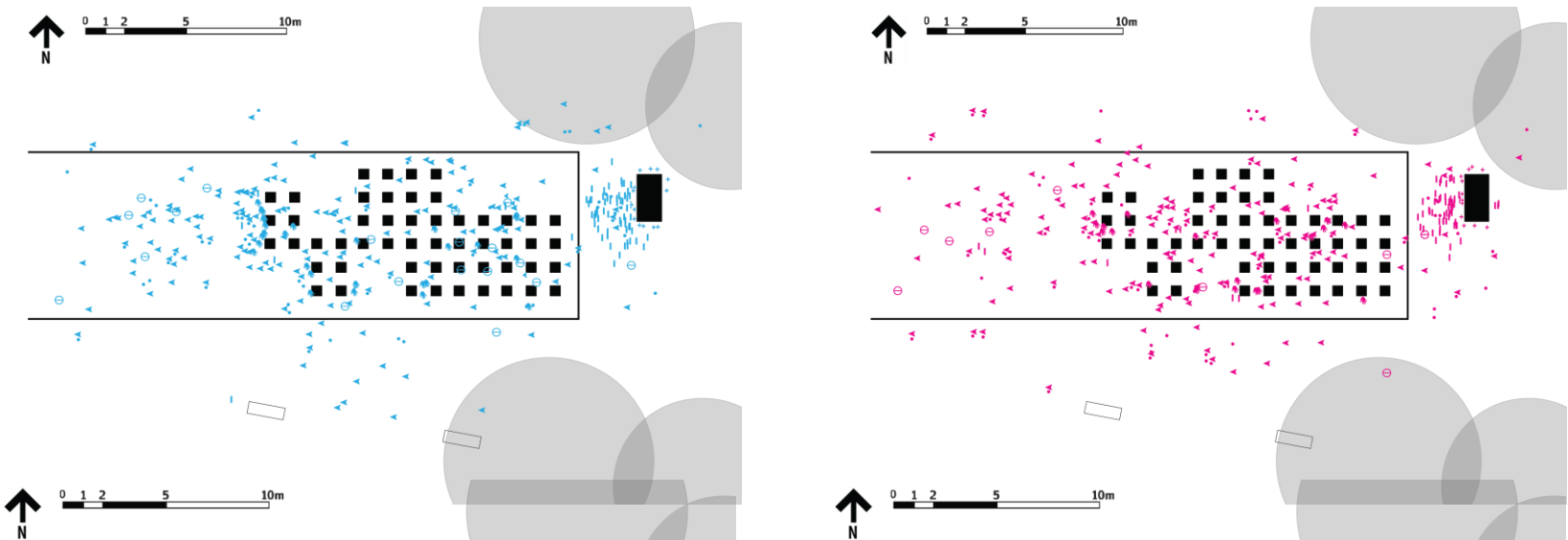


Figure 5.17: Interactive users. From left to right: adult males, adult females

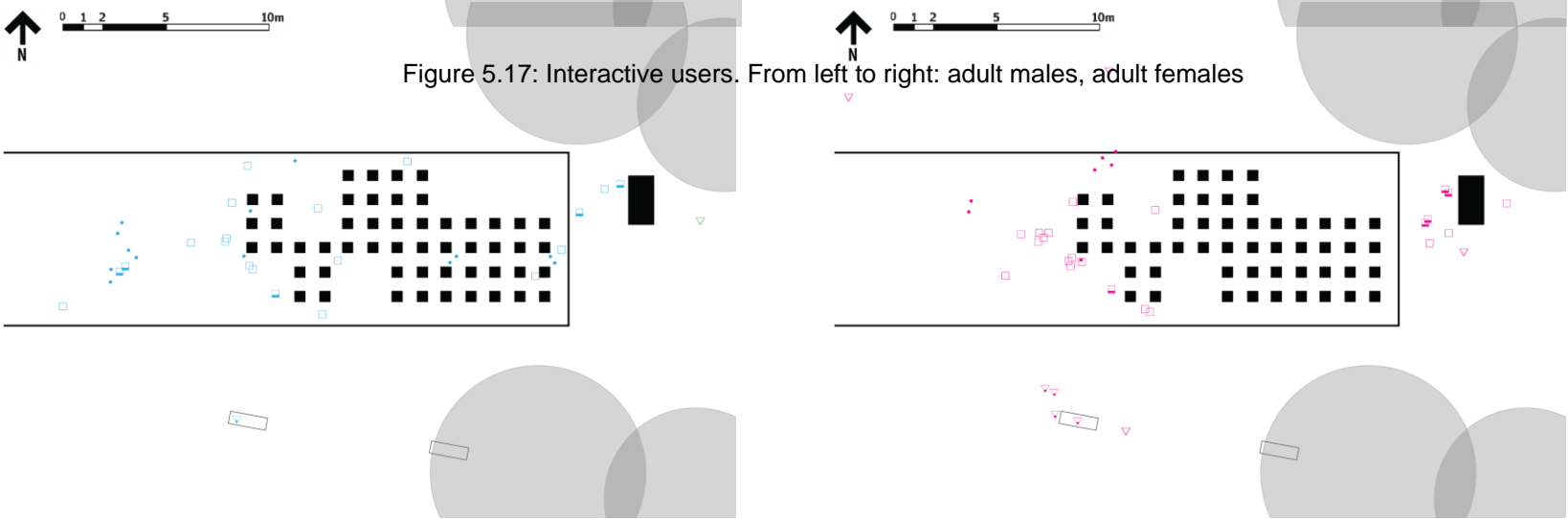


Figure 5.18: Passive users. From left to right: adult males, adult females

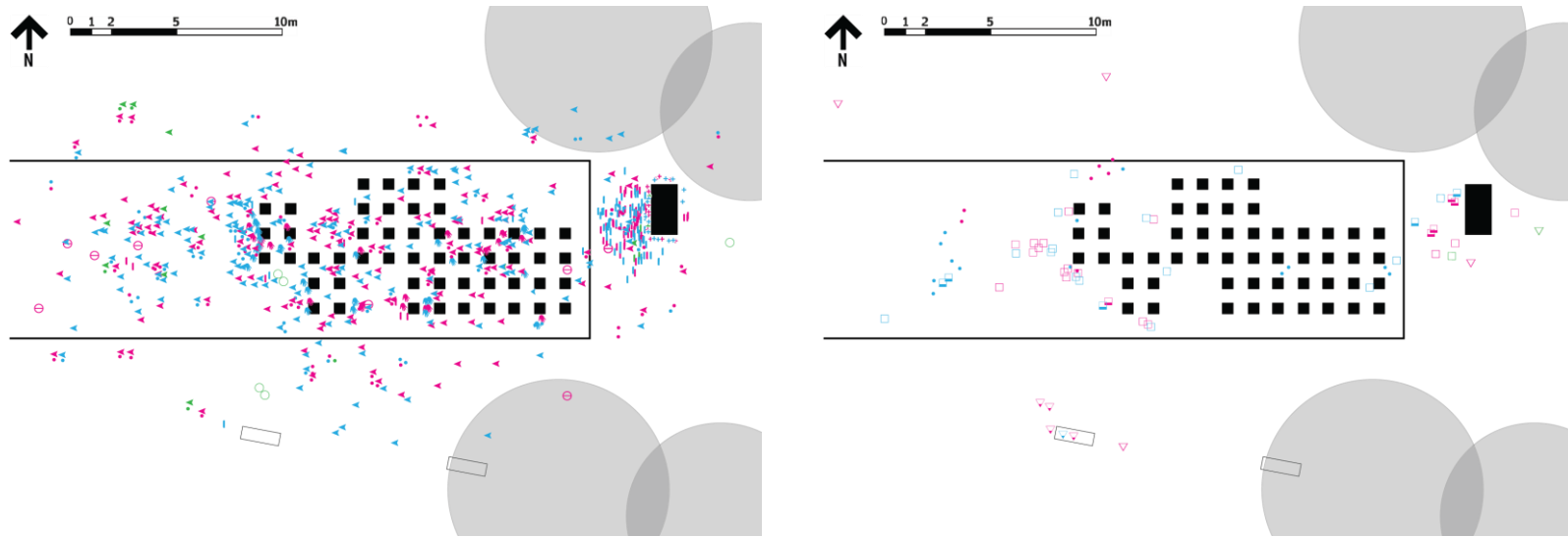


Figure 5.19: 7JM active and passive affordances

### 5.3.3.3. John F. Kennedy Memorial (JFKM)

Figure 5.20 presents an observation map from 19<sup>th</sup> July 2010, with 30 total affordances. This observation period occurred between 1:30pm and 2:00pm. The day was breezy, dry and sunny with moderate temperature. The map shows the number of affordances, not the number of users. Each user can be engaged in more than one activity at a specific memorial element, such as *climbing steps* while *strolling & talking*.

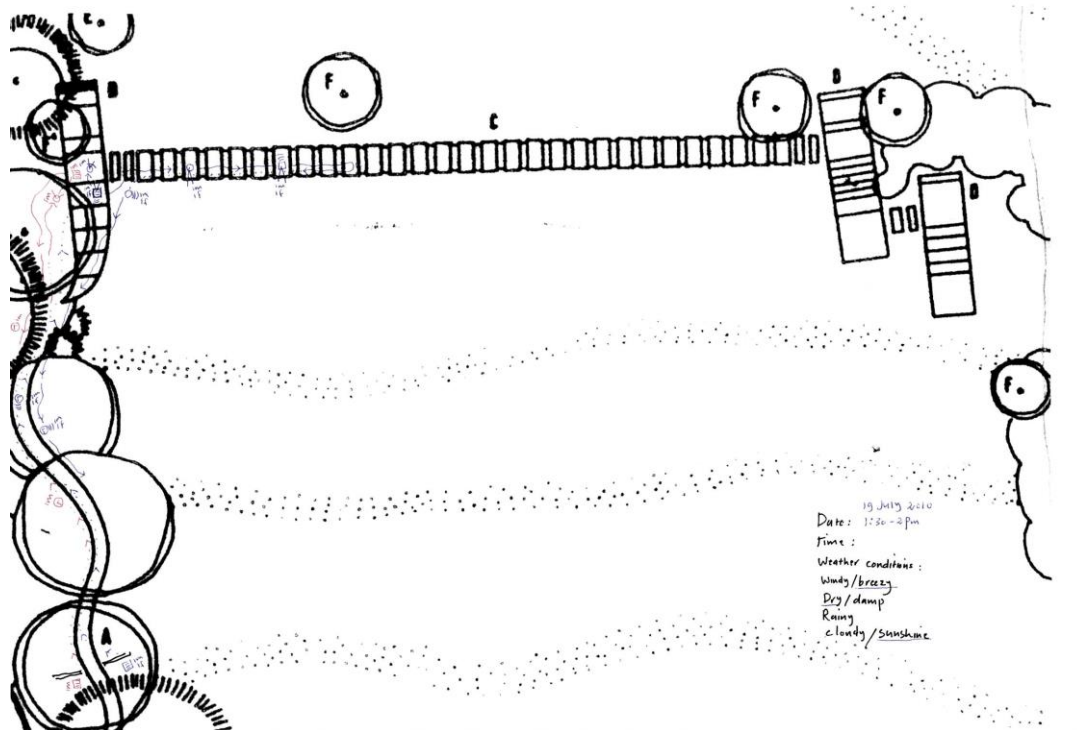
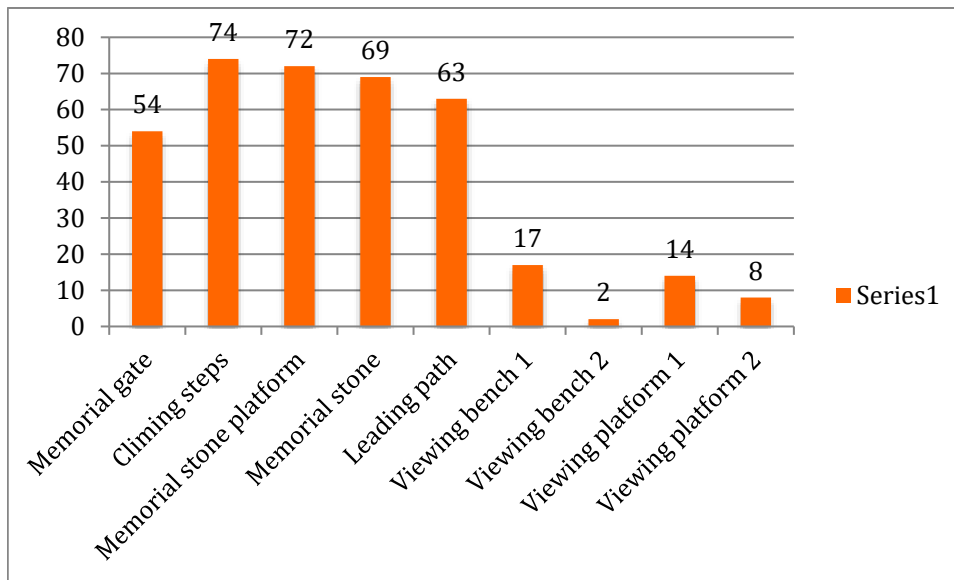


Figure 5.20: One episode of JFKM observation mapping

At the start of the observation slot, the place was generally quiet, with a large group of tourists passing by the memorial gate heading to the Magna Carta memorial. The mapping started at the memorial gate, noting one male and a couple reading the memorial description plaque. After around 10 minutes, the researcher followed two couples *climbing the memorial steps* and *strolling & talking* from the memorial gate until they reached the top of the hill. Two males were also *climbing the steps* individually. At the memorial stone platform, there was a couple *standing & observing & talking*, a male *reading* the memorial stone and *taking photos*, a couple *reading* the stone and a male *strolling & observing*. During that mapping episode, no visitor reached the memorial benches or viewing platforms.

*Memorial patterns of use based on affordances and behavioural settings*



Graph 5.53: Total affordances for each memorial design element

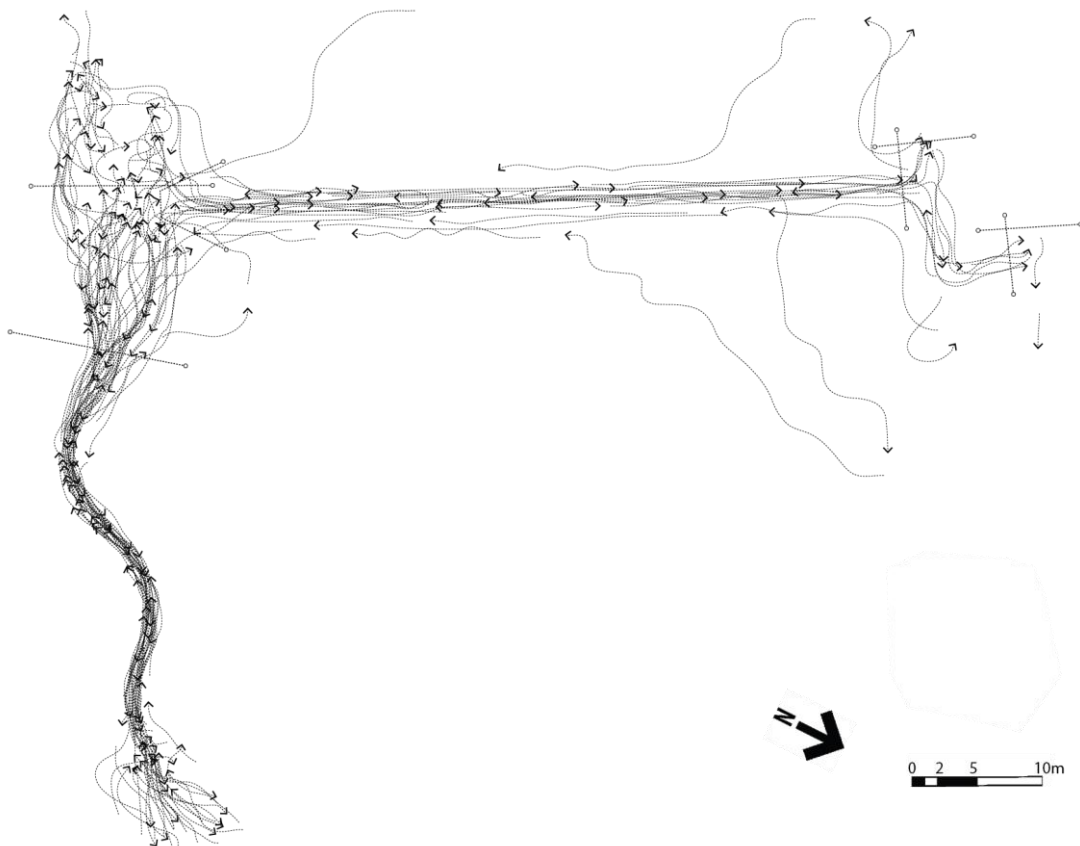


Figure 5.21: JFKM users' motion

Figure 5.22 shows the patterns of use after all observation maps are combined, with 373 total affordances. The least occupied settings were the two *memorial benches* (19 affordances) and the two *viewing platforms* (22 affordances). At the memorial benches, users were *sitting & observing* (9) and *sitting and talking* (10). At the two viewing platforms, activities were: *strolling & talking* (1), *strolling & observing* (5), *standing & talking* (5), *standing & observing* (7), *taking photos* (1) and *climbing steps* (3). The fifth least occupied area was the *memorial gate* with 54 affordances (*strolling & talking* (2), *strolling & observing* (5) and *reading* (47)). The most occupied behavioural settings were the *memorial steps* and *memorial stone platform*, with 74 affordances (*climbing steps* (68), *strolling & observing* (7) and *strolling & talking* (2)) and 72 affordances (*strolling & talking* (16), *strolling & observing* (12), *standing & talking* (16), *standing & observing* (13), *reading* (14) and *running around* (1)) respectively. There were 69 affordances at the *memorial stone* (*strolling & talking* (11), *strolling & observing* (16), *sitting & talking* (2), *standing & talking* (6), *standing & observing* (7), *reading* (12) and *touching* (9)), and 63 at the *leading path* (*strolling & talking* (16), *strolling & observing* (27), *standing & talking* (8) and *standing & observing* (12)).<sup>46</sup>

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<sup>46</sup> These affordances were counted during the observation episodes, and some could be carried out by the same users at different times during the mapping period.

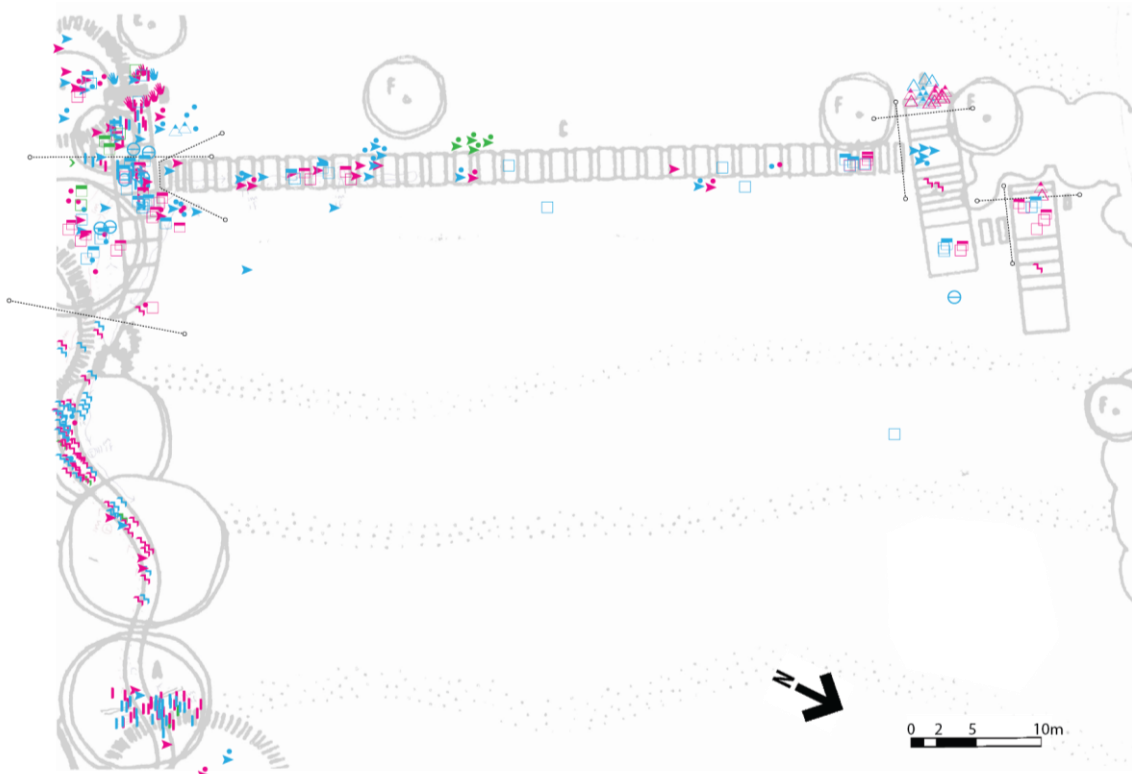


Figure 5.22: JFKM composite map with site properties

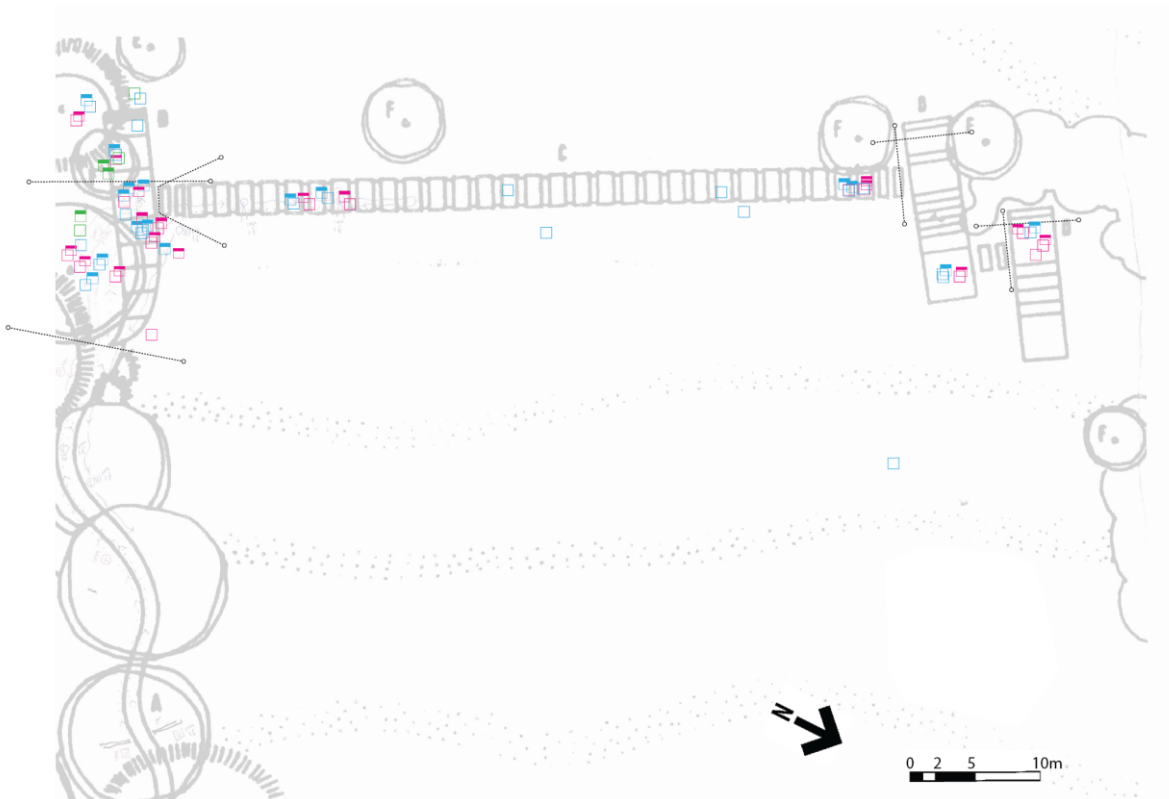


Figure 5.23: JFKM *standing & observing & talking* affordances map

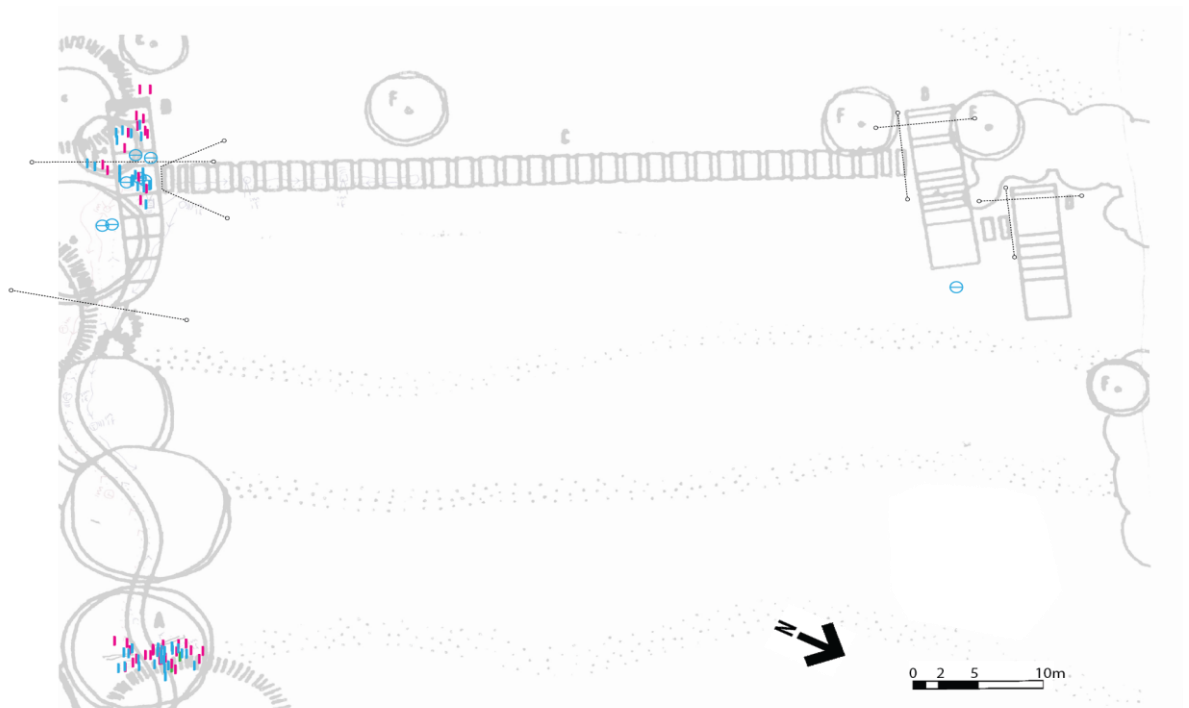


Figure 5.24: JFKM *reading & taking photos* affordances map

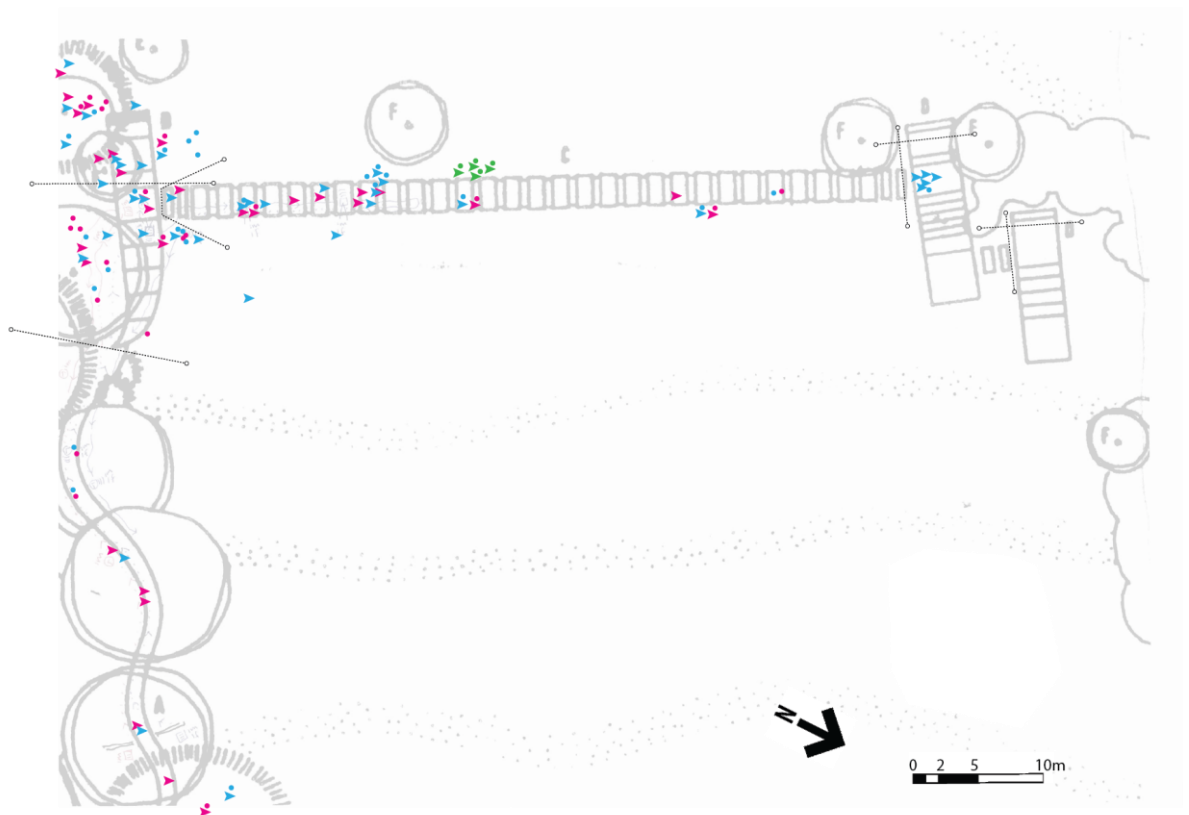
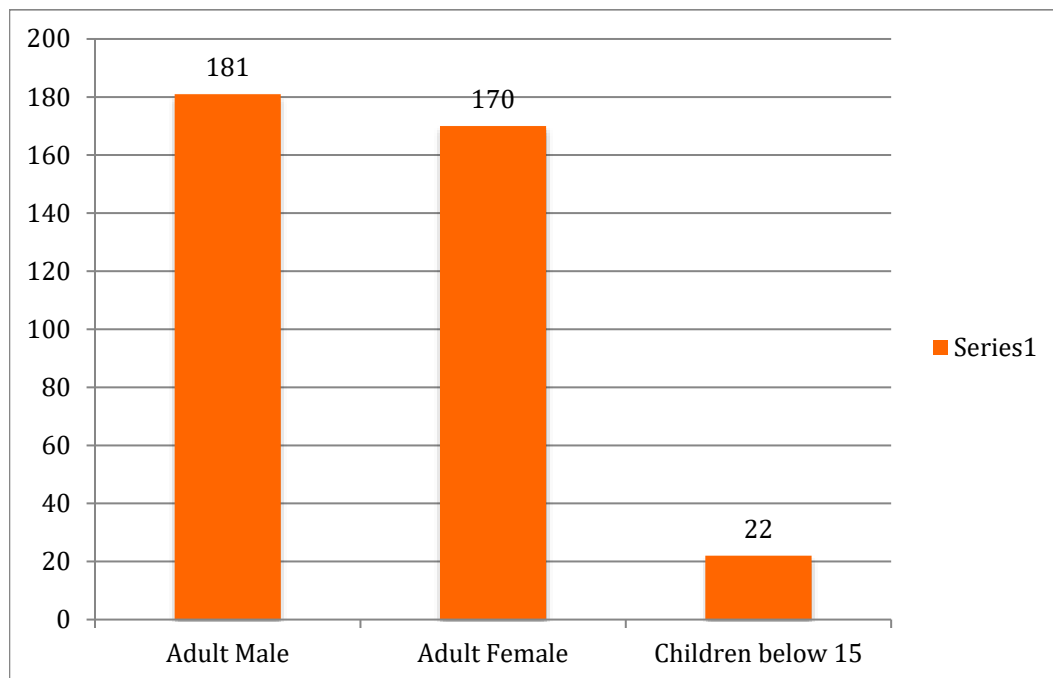


Figure 5.25: JFKM *strolling & observing & talking* affordances map

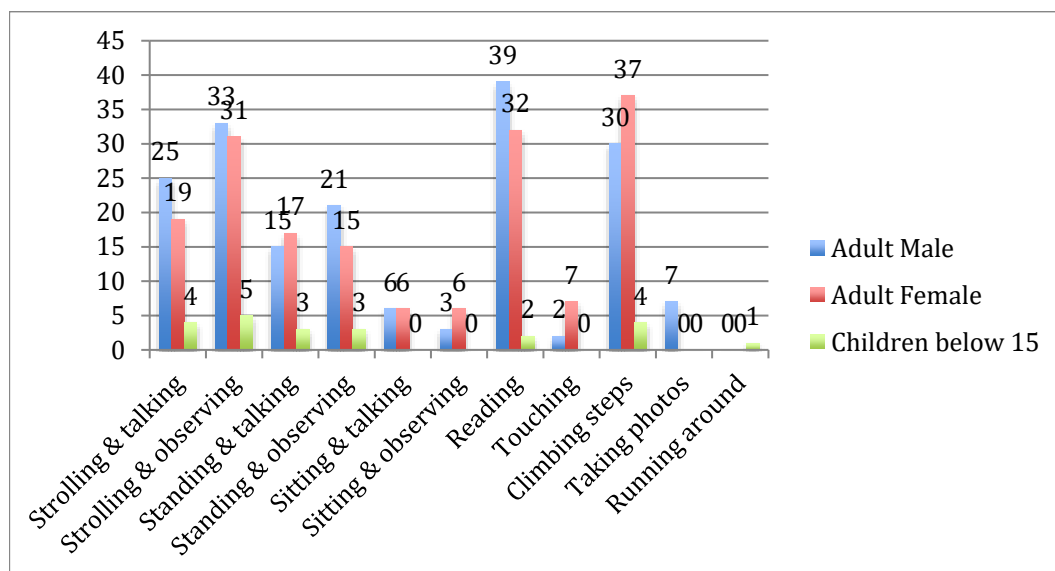


*Variation among gender/age groups*



Graph 5.54: JFKM gender/age groups

The result of the observation showed that adult males were the largest gender/age



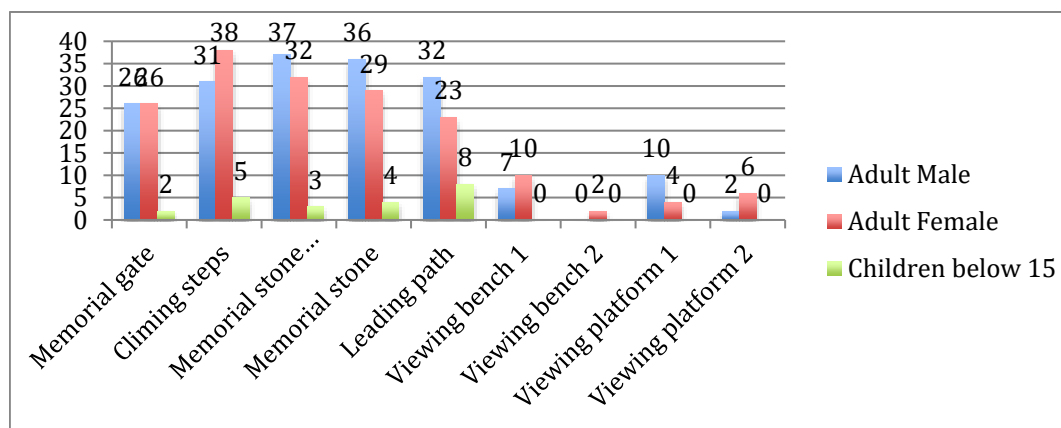
Graph 5.55: JFKM variation of affordances among gender/age groups

group, counting for 181 affordances. Adult female users carried out 170 affordances, and children only 22 affordances (see Graph 5.57). The dominant activities with which male users engaged were *reading* (39 to 32 when compared to women) and *strolling & observing* (33 to 31 when compared to women). Women were more engaged with *climbing steps* (37 to 30 when compared to men), *standing & talking* (17 to 15 when

compared to men) and *touching* (7 to 2 when compared to men). The only affordances in which children were more engaged than adults were *running* (1) and *playing* (4); both occurred outside the memorial site boundary in the open meadows in front of the memorial gate. Graph 5.59 shows the variation of memorial settings among the gender/age groups.<sup>47</sup>

#### *Variation of active and passive affordances*

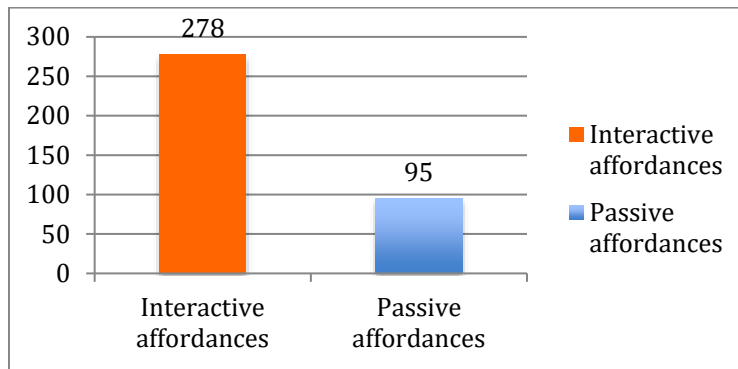
Graph 5.58 and Figures 5.26 and 5.27 show variation of interactive and passive affordances based on gender/age groups. Interactive affordances numbered 278, and passive ones 95. The results show that there is no significant difference between men



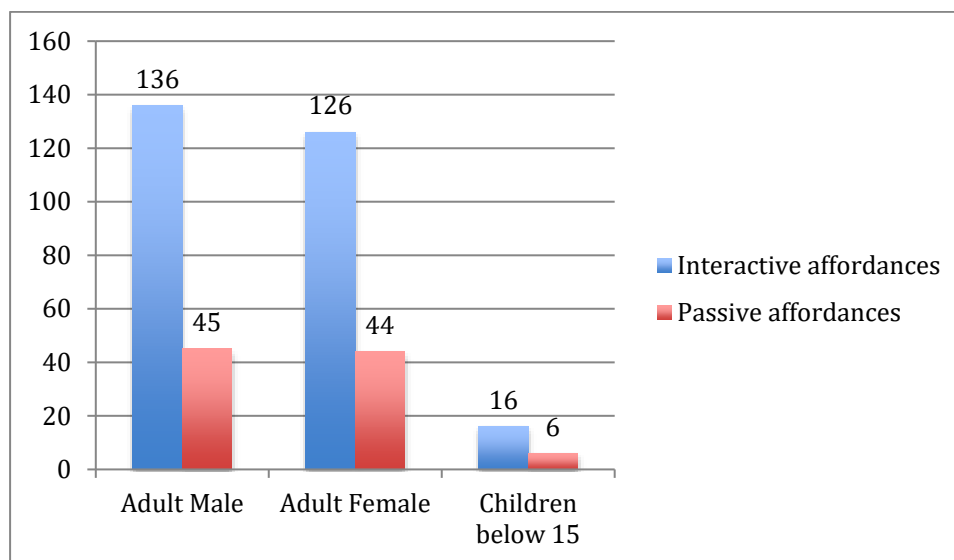
Graph 5.56: JFKM variation of memorial settings among gender/age groups and women in terms of engagement with these two types of activities. (Interactive affordances: male 136, female 126. Passive affordances: male 45, female 443). Children under 15 carried out 16 interactive affordances and only six passive ones.

All memorial behavioural settings, except the benches and viewing platform 2, motivated interaction more than passivity. Interactive affordances at the memorial gate, climbing steps, stone platform, memorial stone, leading path and viewing platform 1 numbered 54, 74, 43, 54, 43 and 9 respectively. The two memorial benches hosted 19 passive activities, while viewing platform 2 hosted 7 (see Graph 5.61).

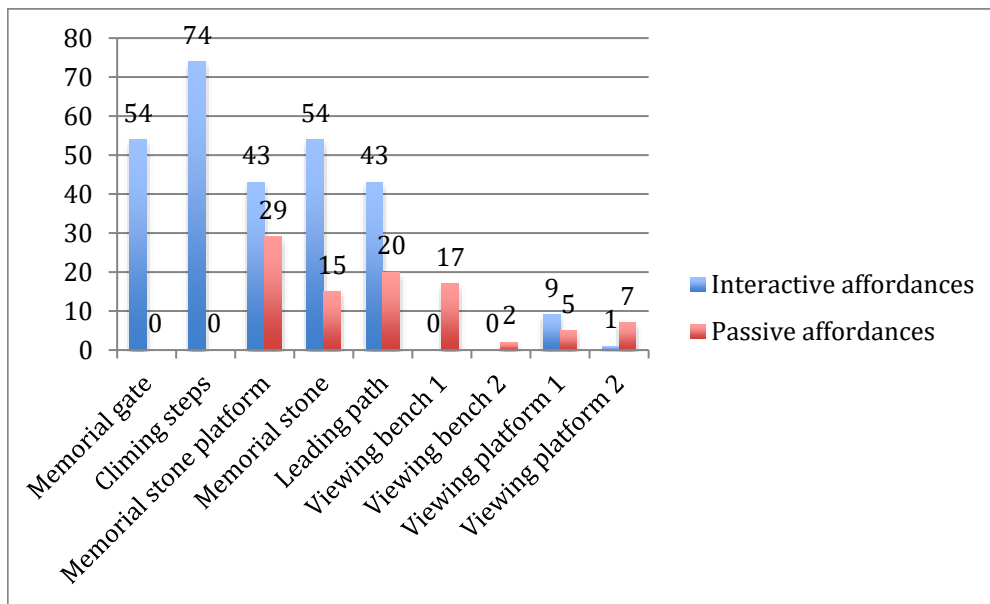
<sup>47</sup> Having presented variations of affordances and memorial settings, there is no significant difference between gender/age groups in relation to these two observation components.



Graph 5.57: JFKM interactive and passive affordances



Graph 5.58: JFKM interactive and passive affordances in relation to gender/age groups



Graph 5.59: JFKM interactive and passive affordances in relation to behavioural settings

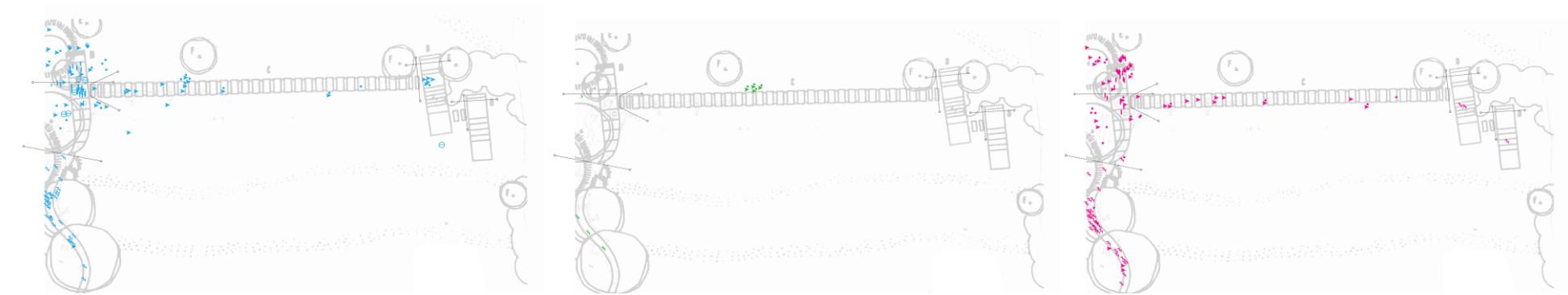


Figure 5.26: Interactive users. From left to right: adult males, adult females and children under 15

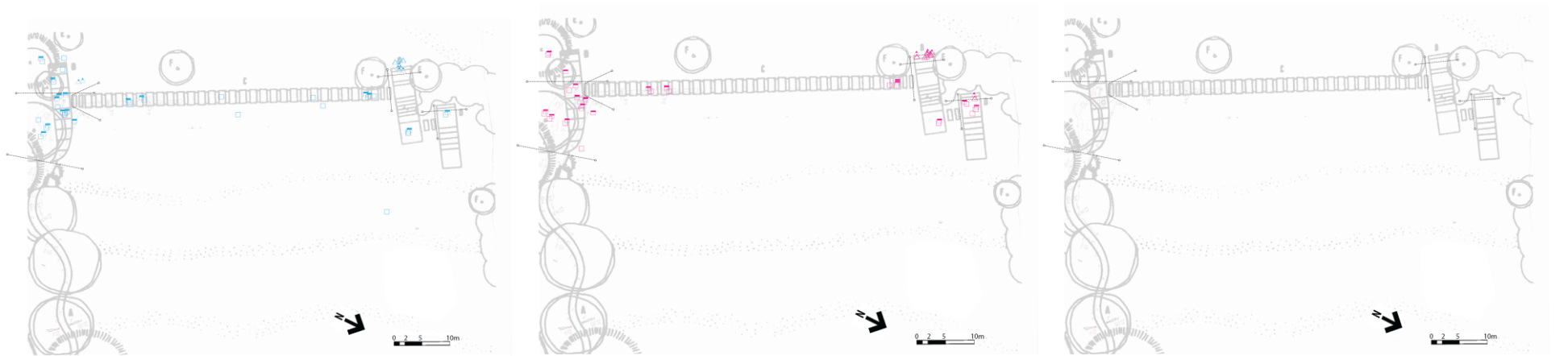


Figure 5.27: Passive users. From left to right: adult males, adult females and children under 15

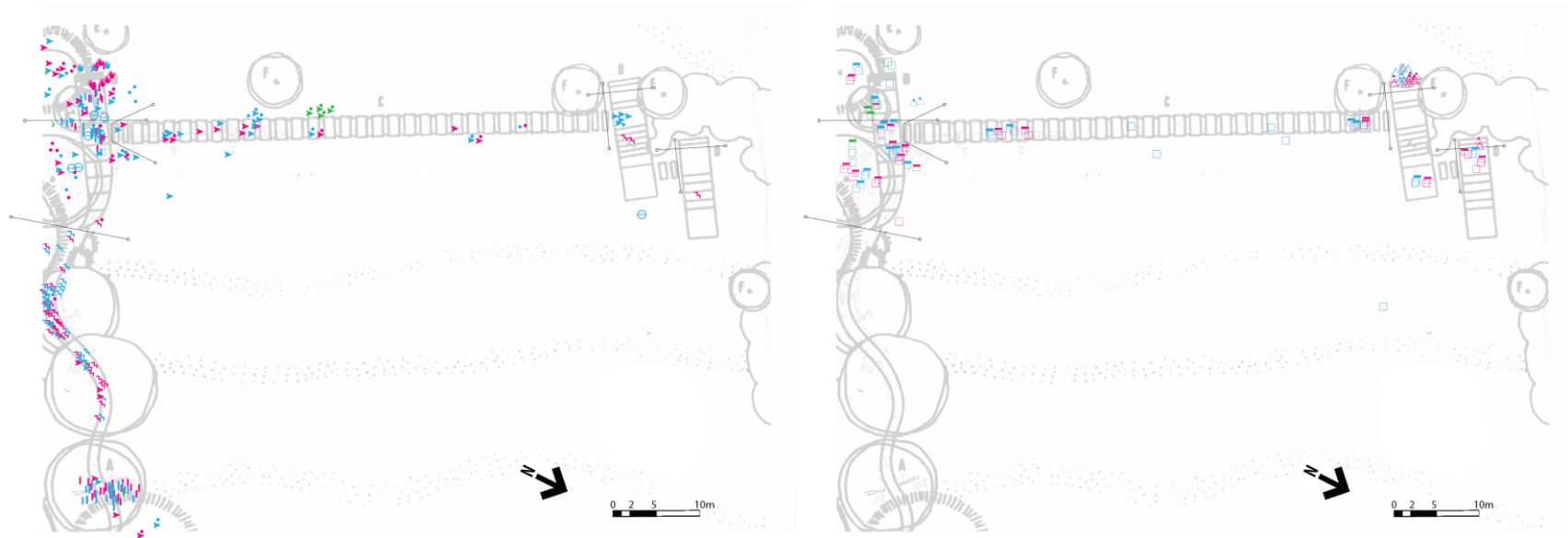


Figure 5.28: Left: interactive affordances. Right: passive affordances



## **PART TWO: DESIGN INQUIRY**

# **CHAPTER SIX:**

## **Research by Design**

### **6.1. Introduction**

This chapter will present the principles and practical implications of research by reflective practice (Schon, 1983) through the process of designing a memorial park and museum for Palestinian Nakba, dedicated to the memories of Palestinians' displacement from their homeland in 1948 and the war experience of the 'expulsion'. Design inspiration and influences include the Al-Nakba archive, found by Diana Allan and other Palestinian researchers, the Palestinian natural and cultural landscape and design metaphoric and artistic representations. The memorial design will act as physical or design manifestations of contemporary memorial theories and practices, as found in the literature review of this research and explored through its empirical study. This research by design section also includes a post-evaluation process through data collection and analysis of the visitors' questionnaires for the design exhibition, which was organised as the last stage of the design research process. This provides more insights into people's perception of contemporary and anti-memorial design notions in general, and their practical implications in the case of the Palestinian Nakba project in particular.

### **6.2. Research by reflective practice**

Practice-based research, as described by Franz, is 'an interpretive, non-dualist activity reflection, implicitly for most, the dialectic nature of human experience and experiencing' (2000). It can offer alternative or complementary research for scientific or conventional enquiry, where the research situation is not a problem to be solved but an enquiry whose problematic situations are characterised by 'uncertainty', 'disorder' and 'indeterminacy' (Schon, 1983).

In scientific enquiry research, understanding mostly comes from explicit knowledge and abstract theories that can be generalised and tested. On the other hand, design



enquiry is concerned with exploring the possibilities; it is categorically not engaged with the discovery of underlying law (Marshall and Newton, 2000). Strand stated that design research 'involves an investigation of strategies, procedures, methods, routes, tactics, schemes and modes through which people work creatively. Design involves the testing of ideas, materials and technologies... It also involves research into cultural, social, economic, aesthetic, and ethical issues' (1997).

Elkins identified three configurations of research by practice PhD:

- The dissertation is research that informs the art practice;
- The dissertation is equal to the artwork (two separate entities);
- The dissertation is the artwork, and vice versa (2005).

This research embraced the three configurations. After the conventional research and design project acted as two separate processes, the design results were re-evaluated



Figure 6.1: Palestinian refugees, making their way from Galilee in October-November 1948

(Source: Front cover of Morris's book, *The birth of Palestinian refugees problem revisited*, 2003)

based on the results of the scientific research, and the reflective practice contributed to design approaches of contemporary memorial, which is characterised by uncertainty and fluidity.

### 6.3. The research by design questions and brief

The word 'Nakba' means 'catastrophe' in Arabic, and it refers to the events relating to Palestinians' displacement from their homeland after the announcement of the 'state of Israel' on the land of Palestine in 1948. During the 1948 war, more than 700,000 Palestinians fled or were expelled from their homes, and hundreds of Palestinian villages were destroyed (Morris, 2003).

Prior to its adaptation by the Palestinian nationalist movement, Arabs used the word 'Nakba' as a reference to 1920, when European colonial powers partitioned the Ottoman Empire into different states, based on what is called the Sykes-Picot

agreement, signed by the French diplomat François Georges-Picot and the Briton Sir Mark Sykes. The word 'Nakba' was first used by Constantine Zureiq, a Syrian writer, to reference the events of the 1948 war in his book, *Maana Al-Nakba* (translated as 'the meaning of Al-Nakba', published in 1956) (Rochelle, 2010). However, the use of the term Nakba was avoided and rejected by many Palestinian refugees, as it lent permanency to a situation they considered temporary. They often insist on being called 'returners'. In the 1950s and 1960s, there were various terms used to describe the 1948 war, including *al-'ighṭiṣāb* ('the rape'), '*al-aḥḍath* ('the events') and *al-hijra* ('the exodus') (Sa'di and Abu-Lughod, 2007).

In this research by design project, the design of the Al-Nakba memorial park and museum are dedicated to the memories of 1948 and 1967 Palestinian refugees, and their experience of the war displacement. As a Palestinian refugee himself, the researcher will not only express his personal and general Palestinian refugee experiences and views of Al-Nakba, but also embrace a design process inclusive of other users regardless of their religious, cultural and national backgrounds.

The brief of this project was to design a memorial park and a museum to commemorate Al-Nakba and its ongoing catastrophic events throughout history, and its effects on refugees' national and cultural awareness, memories and identity. Moreover, the project will host Al-Nakba oral history and archives of refugees' artefacts, photographs and maps.

### **Al-Nakba memorial park**

This part of the project will celebrate the Palestinian cultural and natural landscape and mark the refugees' experiences of displacement from their homeland of Palestine. It will represent Palestinian flora and fauna. It includes:

- Outdoor exhibition and event spaces
- Places for contemplation
- Monument of expulsion

### **Al-Nakba museum**

- Conference centre

- Auditorium
- Administration offices
- Storage
- Temporary exhibition spaces
- Permanent exhibition spaces
- Palestinian art and craft gallery
- Al-Nakba history exhibition (before and including 1948)
- Al-Nakba history exhibition (after 1948)
- Al-Nakba photos exhibition
- Photograph and map archive library
- Palestinian poetic, historical and scientific book library
- Rooms for oral history and Al-Nakba oral archive: interview recording and playing rooms

## 6.4. Historical background

### 6.4.1. Napoleon and Palestine

The creation of the state of Israel, and the expulsion of the Palestinians in 1948, was the result of a longer plan to establish a Jewish nation as early as Napoleon Bonaparte's invasion of Acre in Palestine in 1799. The unsuccessful French siege of the



Figure 6.2: A painting by W. Heath entitled 'The Siege of Saint James D'Acre' from 1799 (Source: Millis, 2012)

Ottoman-defended walled city by Ahmet Jazzar Pasha was also a turning point for Napoleon's invasion of Egypt and Syria. In 1805, Bonaparte insisted that if he had:

*'... been able to take Acre [in 1799], I would have put on a turban, I would have made my soldiers wear big Turkish trousers, and I would have exposed them to battle only in case of extreme necessity. I would have made them into a Sacred Battalion – my immortals. I would have finished the war against the Turks with Arabic, Greek, and Armenian troops. Instead of a battle in Moravia, I would have won a Battle of Issus, I would have made myself emperor of the East, and I would have returned to Paris by way of Constantinople.'* (Herold, 1955: 49)

In his proclamation of 20th April 1799, Napoleon made promises to the Jews, described as 'the rightful heirs of Palestine'. In his declaration, he proclaimed: 'Arise then, waged in self-defence by a nation whose hereditary lands were regarded by its enemies as plunder to be divided...avenges its own shame and the shame of the remotest nations...' In 1831, Benjamin Disraeli visited Jerusalem, and the city's state was shocking to him. He castigated the Christians for not believing in Judaism. 20 years later, he visited Palestine again, and said that 'restoring the Jewish people to their land, which could be purchased from the Ottomans, was not only possible, but right' (Millis, 2012).

#### *6.4.2. The foundation of Zionist ideology*

The founder of modern political Zionism was the Austrian-Hungarian journalist and literary critic, Theodore Herzl. He was a totally assimilated Jew. He was shocked by reports of anti-Semitic programs in Russia in 1881, and when Karl Lueger, who was an anti-Semite, became the mayor of Vienna in 1895. During the time that political Zionism was making its appearance, there was a rising European race-based nationalism into which Jews did not fit. He had a predominant secular vision of a Jewish state.

Herzl declared, in his chairing of the First Zionist Congress in Basel, Switzerland: 'In Basel, I founded the Jewish state. If I said this out loud today, I would be greeted by universal laughter. Perhaps in five years, certainly in 50, everyone will know it'. Herzl's early vision was literally realised, with the establishment of Israel in May 1949 55 years after his

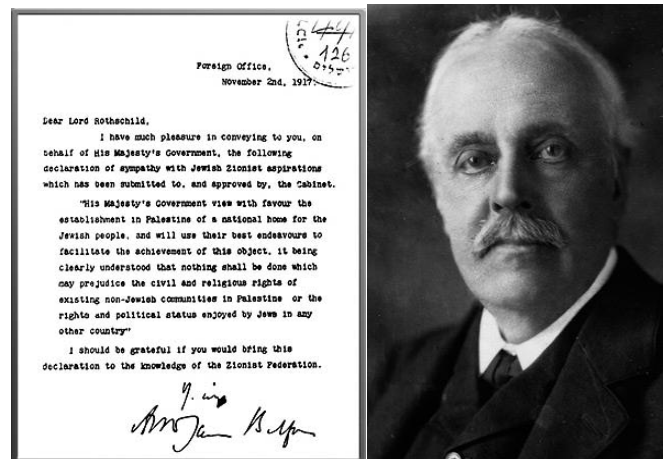


Figure 6.3: 1917 Balfour Declaration to Lord Rothschild  
 declaration. He, however, believed that he needed the support of an imperial power, and because he thought the Jewish state would be German-speaking, he approached the German Kaiser Wilhelm II. Herzl met the German Kaiser in Istanbul in 1898, and the latter agreed to support Herzl's plan. They met again in Palestine on 29th October 1898; that meeting is considered the first time that the Zionist movement, led by Herzl, asked for support from a European imperial power.

#### 6.4.3. First World War and British Mandate

After the First World War, the Middle East was left in a chaotic situation with the collapse of the Ottoman Empire. Furthermore, 16th May 1916 saw the Sykes-Picot agreement to divide the region between France and the UK. Officially, Palestine was under the British Mandate, based on a form known as the British Mandate for Palestine, which was a constituted commission to govern the area confirmed by the League of Nations on 24th July 1922 and in effect from 26th September 1923 (Millis, 2012). Under the Mandate, international powers, including France and the UK, accepted the November Balfour Declaration of the British Government to Lord Rothschild. It stated:

*'His Majesty's government view with favour the establishment in Palestine of a national home for the Jewish people, and will use their best endeavours to facilitate the achievement of this object, it being clearly understood that nothing shall be done which may prejudice the civil and religious rights of existing non-Jewish communities in Palestine, or the rights and political status enjoyed by Jews in any other country'* (Yapp, 1987: 290)

By June 1922, the British had already started applying Balfour's declaration on the ground. In 1937, they set up a royal commission, headed by Lord Peel, to look into ways to determine the nature of the national home for Jews. The Colonial Office sought to restrict the Jewish national state so as to allow for the existence of the Arabic population in Palestine. This contradicted what Jews had



Figure 6.4: Arab revolution against British and Zionism

been led to believe: that their national home would be the whole of Mandatory Palestine. The Royal Commission suggested that there would be two states, one Jewish, the other Arab, set up in Mandatory Palestine. This plan was rejected by both the Jewish and Arab leaderships, although Emir Abdullah of Transjordan urged both sides to accept it. Following Palestinians' and Arabs' rejection of this plan, Haj Amin Al-Husseine, Grand Mufti of Jerusalem, led the opposition against the existence of a Jewish home, and rallied a non-confessional Arab Nationalism against Zionism (Laurens, 1999).

During the 25 years of the British Mandate of Palestine, Jewish and non-Jewish economies grew significantly, with the Jewish sectors increasing by 13.2% per annum. Moreover, a framework of self-rule was established, with the Jewish national council as a government in waiting. In terms of education, the school system was centralised, and higher education was blooming (Millis, 2012).

#### 6.4.4. Arab revolution against Zionism and the British Mandate

Prior to the Second World War, Palestinians were in full revolt against the British Mandate and Zionists, whom they saw as taking over their lands and homes. In 1930, Izz Al-Din Al Qassam, a Syrian preacher from the city of Jableh, arrived in Palestine and established the Black Hand, an anti-Zionist and anti-British organisation, where he recruited and arranged military training; by 1935 he had enlisted 200-800 men. His established cells were equipped with bombs and basic firearms, and they attacked Zionists and participated in campaigns against Zionist-planted trees and British railways. In November 1935, Qassam was surrounded by British police in a cave near Ya'bad, and was killed in a violent battle. A few months later, in April 1936, the Arab National Strike broke out. It lasted for six months, instigated by the Arab Higher Committee headed by Haj Amin Al-Husseine (Khalidi, 2006).

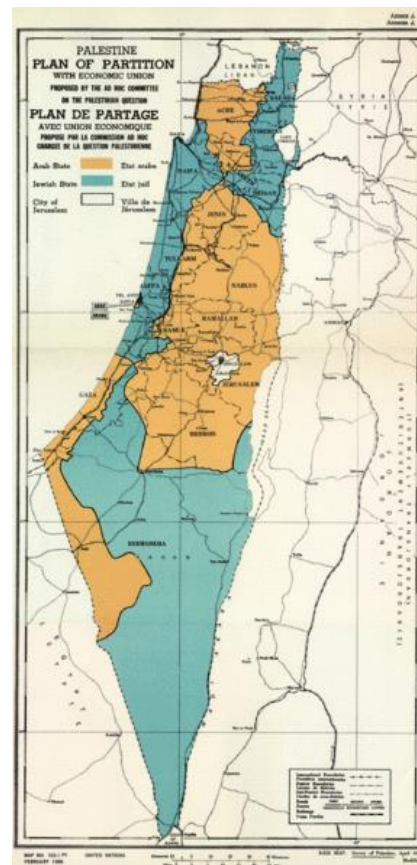


Figure 6.5: UN Partition Plan for Palestine in 1947



Following the Arab rejection of the Peel Commission recommendation to resolve violence, the revolution resumed in autumn 1937. Over the next 18 months, the British lost control of Nablus and Hebron. British forces and 6,000 armed Jewish auxiliary forces violently suppressed the widespread revolts with overwhelming force. British officer Charles Orde Wingate, with support from Jewish volunteers such as Yigal Alon, organised Special Night Squads, where they won several battles against Arab rebels in lower Galilee and the Jezreel Valley (Black, 1991). By the time the Arab revolution ended in March 1939, more than 5,000 Arabs, 400 Jews and 200 Britons had been killed, and 15,000 Arabs wounded. The revolt resulted in the deaths of 5,000 Palestinian Arabs and the wounding of 10,000. In total, 10% of the adult Arab male population in Palestine were killed, wounded, imprisoned or exiled (Khalidi, 2001).

#### 6.4.5. United Nations 1947 partition plan

In 1947, the United Nations proposed a partition plan for the future government of Palestine. The plan was referred to as a Plan of Partition with Economic Union, which, after the termination of the British Mandate, would lead to two state solutions – Arab nationalism and Jewish nationalism – and a Special International Regime for the city of Jerusalem. Part I of the plan contained provisions for the termination of the



Figure 6.6: Palestinians leaving Haifa as Zionist forces entered the city (Gelber, 2004)



Figure 6.7: Palestinians' displacement and refugee camps



British Mandate no later than 1st August 1948. The creation of two states would come into existence two months after the withdrawal, but no later than 1st October 1948. Part II of the plan contained a description of the boundary of each state. The plan was accepted by the Zionist agency, but rejected by the Arab governments and community.

#### 6.4.6. 1948 'Nakba' and beyond



Figure 6.8: Palestinian loss of land between 1946 and 2005

By 1st May 1948, two weeks before the declaration of what Zionists described as '*the day of independence*', more than 175,000 Palestinians had been forced to flee from their homes. Various massacres had occurred against Palestinians, such as Deir Yassin by Irgun and Lehi, and the resulting rumours had caused fear among the population (Morris, 2003). Following this, the Haganah had defeated local militia in Tiberias, and then on 21st and 22nd April, had attacked Haifa with firearms and psychological warfare. Irgun, a Zionist organisation under Menachem Begin, fired mortars on the city of Jaffa. Each of these military actions resulted in panicked evacuation by Palestinians. Meron Benvenisti regards Deir Yassin as 'a turning point in the annals of the destruction of the Arab landscape' (2002: 116). In Haifa, Haganah gave a warning to Palestinians 'that unless they sent away "infiltrated dissidents" they

would be advised to evacuate all women and children, because they would be strongly attacked from now on'.<sup>48</sup> Haganah Brigades were informed that nothing should distract their troops from their main tasks: 'the cleansing of Palestine remained the prime objective of Plan D' (Pappe, 2006: 128).<sup>49</sup>

By the end of 1948, approximately 711,000 to 750,000 Palestinians had left, fled or been expelled from their homes (McDowall and Palley, 1987), and more than 500 villages were destroyed in Mandatory Palestine in the 1948 Arab-Israeli War (see appendix for the names of all known destroyed villages). It has been said that around 80% of Arab inhabitants of what became Israel moved out of their homes. However, the exact number of Palestinian refugees is not confirmed and it is a matter of dispute (Pedahzur and Perliger, 2010). There is a fundamental disagreement between Arabs and Zionists on the causes of expulsion. Causes for the exodus include Jewish military advances and attacks on Palestinian cities and villages, fears of massacre after Deir Yassin, which exacerbated panic fleeing among Arabs, the collapse of Palestinian leadership and Arabs' refusal to live under Zionist control. After the expulsion, the first Israeli government passed a series of laws preventing refugees from returning to their homes. This Palestinian expulsion was described by many historians as 'ethnic cleansing' (Pappe, 2006; Black, 2010).<sup>50</sup>

Al-Nakba changed Palestine dramatically. However, the Zionists' policy and practice of forcible displacement of the indigenous Palestinian people did not stop with the establishment of the state of Israel in 1948; rather, it only started that year. Since Al-Nakba, every passing year has witnessed a wave of forcible displacement, higher in some years than in others. For example, during the 1976 Arab-Israel war, another 400,000 Palestinians became refugees, both inside Palestine and in other neighbouring countries.<sup>51</sup>

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<sup>48</sup> 'British Proclamation in Haifa Making Evacuation Secure'. *The Times*, London, Thursday, 22nd April 1948; p. 4; Issue 51052; col D

<sup>49</sup> Originally cited in Yehuda Slutzky, 2006. *Summary of the Hagana Book*.

<sup>50</sup> From Ian Black's article 'Memories and maps keep alive Palestinian hopes of return'. *The Guardian*, 26th November 2010.

<sup>51</sup> The Office of the UN High Commissioner for Human Rights (OHCHR) (2007), "Applying a human rights-based approach to climate change negotiations, policies and measures", retrieved on 14-8-2013 from:

<http://www.ohchr.org/Documents/Issues/ClimateChange/InfoNoteHRBA.pdf>.

## Al-Nakba Memorial: The project site

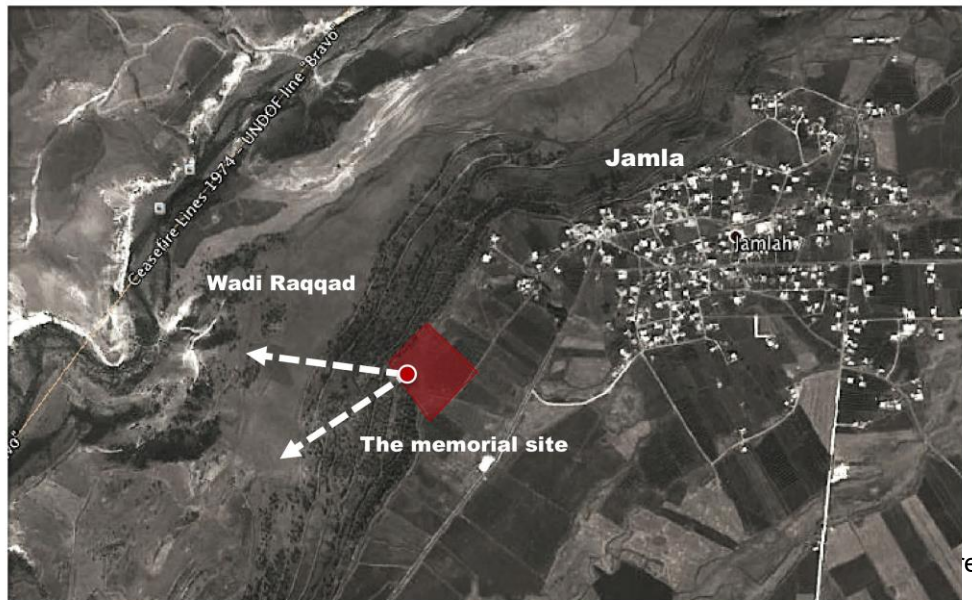


Figure 6.9: The memorial site, located on the eastern slope of Wadi Raqqad, and overlooking occupied Golan Heights and Palestine

### 6.5. Proposed site and its geographical context

The proposed site for the Al-Nakba Memorial is situated in the southwest of Jamlah, a village in southwest Syria, administratively part of Daraa governorate and immediately east of Israel-occupied Golan Heights. The site is on the eastern slope of the Wadi Raqqad valley, overlooking Golan Heights and Palestinian landscapes. It also has distant views of Tebrias Lake (also known as the Sea of Galilee; see Figure 6.9). Jamlah's adjacent settlements include Abdin to the south, Nahiyah to the southwest, Nafia to the east, Ayn Zakar to the northeast and Saida to the north. It had a population of 1,916 in 2004, based on the Syrian Central Bureau of Statistics (CBD). The village has long ancient history, indicated by large stone ruins in the area.

This site was chosen for its historical importance, being on the front lines of the 1967 and 1971 Arab-Israel wars, and also for its geographical significance, situated in the higher landscape with far-reaching views and a strong geographical and visual connection with occupied land. The site covers approximately 421813 square metres (104 acres) of flat landscape (see Figure 6.9).

## 6.6. Design process

### 6.6.1. *Design principles and theoretical framework*

#### 6.6.1.1. *Al-Nakba archive project (2002)*<sup>52</sup>

Since 1948, there have been various attempts to document the Palestinian experiences and events of Al-Nakba, and all materials and artefacts carried by Palestinian refugees to their host countries. These are considered to be the motivations behind this current project, in addition to the researcher's own personal experience and understanding of Nakba, being a Palestinian refugee himself. One of the most recent and important documentation projects is the 'Nakba Archive', founded by Diana Allan, an anthropologist and filmmaker, in 2002. It has been a collaborative endeavour, jointly run by scholars and academics from Lebanon, Harvard and the UK. 'As the living ranks of the 1948 generation continue to thin, the cultural value placed on their narratives by communities within the Palestinian diaspora continues to rise. Histories of 1948 are being ceaselessly re-filtered through the radically unstable lens of the current situation, and narration is accordingly motivated by the need not only to make sense of and transmit a traumatic past, but also the attempt to take hold of and give shape to an imminently uncertain present and future'.<sup>53</sup>

This project acts as an 'Oral History', including video-recorded interviews with the Palestinian refugee generation who experienced war displacement before and during 1948. Moreover, as stated by the project's founders, it serves both an archival and pedagogical role, recording the Palestinian collective memory of the last generation of Nakba eyewitnesses, and also functions as a 'public act of witness' to the legacy of Nakba and its impact on Palestinian refugee communities in neighbouring countries such as Syria and Lebanon.

The researcher/designer thinks that there is a great need for proposing a hosting space to exhibit all materials collected in this archival project and others. The

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<sup>52</sup> More information about the Al-Nakba archive project can be found at: [www.nakbaarchive.org](http://www.nakbaarchive.org).

<sup>53</sup> Retrieved on 10th August 2013 from: <http://nakbaarchive.org/project.htm>.

designed museum and memorial park will serve to protect documents and artefacts and keep refugees' historical narratives and experiences alive.<sup>54</sup>

#### 6.6.1.2. The concept of 'Anti-Memorial':

The principles of Anti-Memorial, discussed in detail in Chapter Two, act as a basis for the Al-Nakba memorialisation process, through Palestinian refugees' participation in conceptualising and making the memorial project. Archival maps, photos, personal identifications, deeds and original keys to homes, artefacts and personal

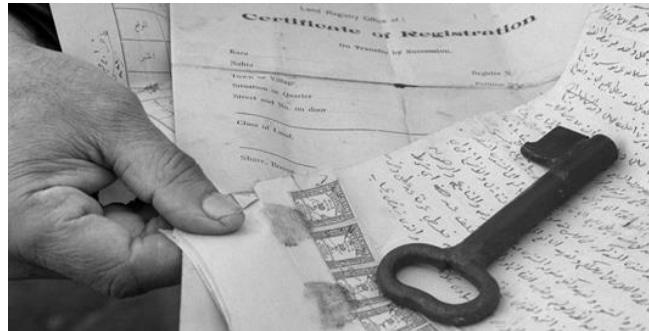


Figure 6.10: A Palestinian refugee in the Dehaishe refugee camp holds the original key and title deeds to the home his family abandoned during the 1948 Nakba

belongings will all be hosted in the memorial park and museum space, which has been designed to accommodate all physical and oral materials. In addition, the park and museum will include chambers of voices, where oral history refugees' interviews from the Nakba archive will be recorded and played, so that their voices will resonate around the project interior and exterior spaces. As a result, park and museum spaces will continuously change and transform, representing the temporal qualities of events and performances programmed to occur within them. This project will act as a '*working memorial*' that invites collective engagement. It is not a silent and symbolic site of memory, but an agent for active dialogue. All exhibitions in the park and the museum will be curated by Palestinian refugees themselves, while the project spaces will serve as containers for the accumulations of memories, experience of Nakba displacement and its impacts on refugees' current lives and future generations.

#### 6.6.1.3. Means of 'Transactionalism' in Al-Nakba Memorial design

Person-environment relationship in any memorial project serves as the most important aspect of its design process. As stated by Altman and Rogoff (1987):

<sup>54</sup> There were a few online informal discussions with Diana Allan, and there was agreement on the potential and the importance of this project as a complementary part to the Nakba archival project.

'Behavior, places, and temporal dynamics are mutually interlocked such that behavior gains meaning by virtue of its location in a particular spatial and temporal context, and the context gains meaning by virtue of the actors and actions that exist within it'. In the Al-Nakba memorial context, Palestinian refugees are weighted by their memories of displacement, fleeing experience and their lives in refugee camps in hosting countries, mainly Syria, Lebanon and Jordan. All are interlocked with memorial spaces and places in the form of a park and a museum. These spaces and places will gain their meaning from both their physical characteristics and refugees' and users' psychological aspects. This interplay between two worlds, internal (refugees' memories, narratives, experiences and artefacts) and external (the hosting environment), represents one holistic system.

Agriculture and farming have a strong significance for Palestinian natural and cultural identities due to its affiliation with land, cultural heritage and social life. The strong physical and emotional relations of Palestinians with land have increased Nakba pains and land loss, and highlighted its negative impacts on Palestinian generations. The transactional relationship of refugees with their lands in Palestine will be literally translated by memorial design.

Based on transactional theory principles of person-environment relationship, the Al-Nakba memorial design should demonstrate the strong link between participants and memorial elements through symbolic representations of Palestinian Nakba and its events and facts, Palestinian natural and cultural identities, participant multiple backgrounds (Palestinian and non-Palestinian) and the ongoing Nakba events. The bodies and souls of Palestinians will be integrated, embedded and resonant in the environment. Moreover, the design will symbolise the ongoing pain and suffering caused by Zionism throughout modern history.

#### *Change and time*

The focus of this design study will be on 'actions' and 'processes' rather than the static and physical quality of the design. Participants carrying their stories to the site, translated in the forms of event, exhibition, interview recording, contemplation and performance, are a key aspect of this project. As the personal state of mind is in continuous flux, based on each refugee's personal social experience since Al-Nakba, this stresses the necessity of studying the transformation of the hosting spaces, rather

than its current predetermined designed forms. The memorial park and museum spaces should change continuously based on their users, temporary events and exhibitions and fragility and material state changeability. This aspect of temporality and changeability is compatible with the concept of Anti-Memorial and Counter-Monument.

#### *Memorial behaviour settings*

Wicker described behaviour setting as an '[a]bounded, self-regulated and ordered system composed of replaceable human and non-human components that interact in a synchronized fashion to carry out an ordered sequence of events called the setting program' (1979: 12). The Al-Nakba Park and museum are composed of a set of networked spaces, self-regulated by specific changing systems or programmes, interacting with each other to create self-maintained entities. Thus, these behaviour settings (or spaces) are recognised by a pattern of actions organised by temporal and systematic manners. Moreover, sharing meanings and symbolism, these settings help to unify Palestinian refugees with their changing social and psychological processes, and open new ways of interpretation and engagement for non-Palestinians.

### *6.6.2. Design inspirations*

#### *6.6.2.1. Palestinian natural and cultural landscapes*

##### *Palestinian topography*

Palestine is bordered by the Mediterranean Sea to the west, Lebanon to the north, Syria and Jordan to the east and Sinai and the Gulf of Agaba to the south. The border between Palestine, Syria and Lebanon was determined by an Anglo-French agreement (known as the Sykes-Picot agreement) concluded on 23rd December 1920. The border between Palestine and Trans-Jordan was determined by the British High Commissioner of Palestine on 1st September 1922.

Palestine can be divided into four main distinct regions:

##### *Coastal and Inner Plains*

These are among the best fertile lands in Palestine and elsewhere, with adequate resources of irrigation (from rainfall and underground water). They are where most of the Palestinian citrus groves used to stand. The coastal stretch is divided by Jabal

al-Karmel (Mount Carmel) into the plain of Acre and the plain of Palestine (also called Saruunah).

### *Mountains and Hills*

This part is largely rocky but has terraces that make it suitable for a number of trees. Olives are one of the most planted trees in these regions. There are almonds, apples and others. There are also patches of plains scattered around in this region, which are fully utilised. Mountains are located in the al-Jaliil (Galilee), al-Karmel, Nablus and Hebron areas.

### *Jordan Valley and Ghawr*

This is well below sea level, hence the name Ghawr; it has very good soil but very few water resources. Agriculture there depends on irrigation either from local streams or the Jordan River. Due to its climate, the region used to produce summer vegetables in late winter.

### *Southern Desert*

This region comprises almost half of the land of Palestine. It is also triangular in shape. The base is fertile, and the rest, with its apex near the town of Aqaba, is poor with scattered patches of regions suitable for cultivation. Bi'r as-Sab' (renamed Beersheba by the occupation) is the main town in the region.<sup>55</sup>



Figure 6.11: A Palestinian man confronts an Israeli settler, part of a group trying to prevent Palestinians from planting olive trees, near the southern West Bank city of Hebron on 1st January 2010

<sup>55</sup> Mohammad Shurraab: Mu'jam Buldaan Filasteen. Retrieved on 28th October 2013 from: [www.geocities.ws/filasteen/geography.html](http://www.geocities.ws/filasteen/geography.html).



### *Palestinian Flora*

Palestine has a stunning variety of flowers and plants. It is packed with different landscapes such as snow-covered mountains, parched deserts, fertile fields, lush woodlands and long stretches of sand dunes. It has more than four different geographical zones, and the country's climate ranges from semi-arid to temperate to subtropical.

The most popular Palestinian trees are mentioned in the Quran and the Bible: olives, oranges, fig trees, wheat, barley and pomegranates. Bananas, oranges and other citrus fruits dominate the coastal plain. Deciduous fruit trees grow all over the country, but particularly well in the cool hills. Dates, bananas, avocado, guava and mango flourish in the hot Jordan valley.

#### *The olive tree: the Palestinian symbol of steadfastness and resistance*

The olive tree has been the symbol of identity, steadfastness, peace and the right of return for Palestinian refugees all over the world. This tree can live an average of 400 years, although many have survived up to 1,000 years. Hence, the historical landscape of Palestine has been attached to this tree, and it has been central to Palestinian agriculture, economy, identity and culture. During a successful harvest, the olive industry can make up 15-19% of Palestinian agriculture production<sup>56</sup> (see Figure 6.12).

However, as a result of the political situation and Israeli apartheid actions in and around the Palestinian Occupied Territories, ripe olive trees have been systematically destroyed, and hundreds of olive trees have been cut from their roots, destroying any chance of olive production. Farmers are left with no income to provide for their families, and are unable to cover the costs of planting new olive trees<sup>57</sup> (Figure 6.11). Juan Cole



Figure 6.12 Olive harvest in Palestine, 1886

<sup>56</sup> <http://humanappeal.org.uk/appeal-detail.html?appealid=74>.

<sup>57</sup> <http://humanappeal.org.uk/appeal-detail.html?appealid=74>

stated, 'Israelis are estimated to have destroyed some 800,000 olive trees since Israel militarily occupied the Palestinian West Bank in 1967. Israel's systematic contravention of the 1949 Geneva Convention and the 1907 Hague agreement on treatment of populations in occupied territories has long since rendered the occupation illegal (if not a crime against humanity), as well as leaving millions of Palestinians stateless and without the rights of citizenship. Their property is therefore not secure, since they have no state to back up their property rights, and their economic security is constantly threatened' (Cole, 2013).<sup>58</sup>

### *Jerusalem Landscape*

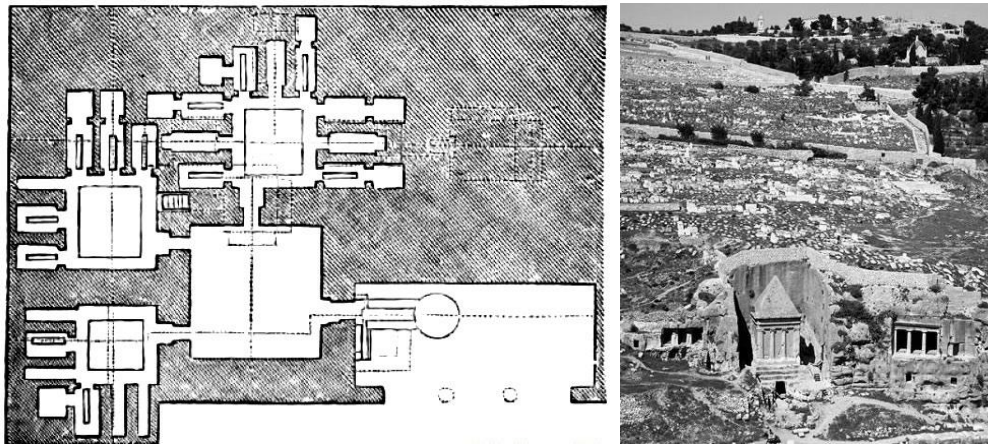


Figure 6.13: Left: Tombs of kings (100 AD). Right: Tombs of the son of Hezir and Zakarayah (200 BD) on the right

As mentioned before, the eastern Palestinian topography is made up of hilly landscapes overlooking inhabited cities. Mountains surrounding cities are usually used for agriculture and graving lands. Jerusalem has some of the oldest tombs in Palestine. 820 metres north of Jerusalem's old city walls, in the Sheikh Jarrah neighbourhood, are the Tombs of Kings (100 AD), a collection of rock cut tombs, believed to be the burial site of Queen Helene of Adiabene (Figure 6.13). The Tomb of the Son of Hezir and Zakaraiah (200 BC) is a grand monument built in the rock of the foothill of the Mount of Olives facing the temple mount (Figure 6.13). The Mount of Olives has always been an important feature in Jerusalem's landscape, and has served as one of the main burial grounds for the city. The chalk is not of suitable

<sup>58</sup> Cole, J. 2013. *Israeli Settlers Chop down more Palestinian Olive Trees (having destroyed 800,000 since 1967)*. Retrieved on 5 November 2013 from: <http://www.juancole.com/2013/10/settlers-palestinian-destroyed.html>

strength for construction, which is why the Mount was never built up, and instead features man-made burial caves (Figure 6.14).

### *Palestinian poetry*

Ghassan Kanafani, a famous Palestinian writer, wrote extensively about the position of Palestinian literature within the wide context of Arab literary movements. He stated that before the tragic fall of 1948, Palestinian literature was part of the mainstream of the Arab literary movement, flourishing in the first half of the twentieth century. Many famous Egyptian, Syrian and Lebanese writers influenced Palestinian literature and were considered its main source and inspiration. Arab capitals, such as Cairo and Beirut, embraced many renowned Palestinian writers, and patronised and published their literary productions.

After 1948, there was a great shift in Palestinian literature following a current Arab literary example to the literature of the 'Exile', and it succeeded in laying the foundations of a new literary movement of resistance. In recent years, poetry, as a main component of this movement, has achieved a remarkable improvement in quality and technique, reflecting Palestinian suffering and Al-Nakba sentimental narratives. However, the literature of resistance inside Palestine suffered from 'radical differences of tenets' and the immigration of influential writers and men of culture. Non-immigrant Palestinians were mainly from rural areas, and were subjected to 'political, social, and cultural persecution' (Kanafani, 1986).

Two of the most famous Palestinian poets, whose works have contributed to the



Figure 6.14: Left: Jerusalem from the Mount of Olives by Frederic Edwin Church, 1870. Right: Hebron, nineteenth century

occupation resistance and influenced many Arab generations after Al-Nakba, are Mahmoud Darwish and Samih Al-Qasem.

*Palestinian art**6.6.2.2. The dark worlds of Alice Aycock*

Alice Aycock is an American sculptor, who graduated from Douglas College, New Jersey, in 1968, and went to New York where she received her Masters from Hunter College in 1971. Her early works in the 1970s were site-specific land pieces, using natural material like stone and wood. She started using steel in the 1980s. Her public sculptures can be found throughout the US, such as the suspended work at Dulles International Airport, a large-scale sculptural roof installation for the East River Park Pavilion on 60th Street in New York City and Star Sifter for Terminal One at John F. Kennedy International Airport. One of her most interesting early works, considered by the researcher as an inspiration for the memorial design, is 'A Simple Network of Underground Wells and Tunnels', completed in 1975 in New Jersey.

*6.6.3. Design concept*

The overall memorial design is loaded with heavy symbolism and metaphors for different meanings and personal interpretations of Palestinian Nakba. The main design concept is based on the manifestation of the transactional relationship between Palestinians and their homeland, and plays with the ironic representation of the notions of 'distraction', 'displacement', 'migration', 'partition' and 'division' Palestine has experienced for more than 93 years. 1948 witnessed the erasing of the Palestinian landscape identity through ethnic cleansing, changing and rewriting history and forcibly expelling people from cities and villages.

*Landscape Geo-migration: map fragmentation*

Figure 6.16 represents the main design conceptual diagram. The main design idea is based on the division of the Palestinian map into six main territories, called landscape plates. They are from north to south as follows:

Plate one: cities of Safad, Akka, and Teberia

Plate two: cities of Haifa, Baysan and Nazareth

Plate three: cities of Nablus, Jenin and Tulkarm

Plate four: cities of Jerusalem, Ramleh, Ramallah, and Haifa

Plate five: cities of Hebron and Gaza

Plate six: city of Be'r Alsabe'

These regions act as geological plates in geological terms, where borders between the regions could be described as geological faults. Attached to these six regions are the six expulsion routes the refugees took when they fled from Palestine to Syria, Lebanon, Egypt, Jordan, the Mediterranean and other areas inside Palestine. Strong energy forces the six plates to rotate and move around the six routes of displacement to create a new changing, flexible and unstable arrangement.

*Landscape Geo-migration: space formulation*

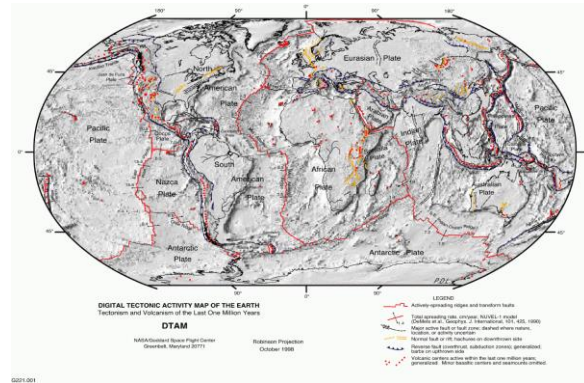


Figure 6.15: The earth digital tectonic activity map

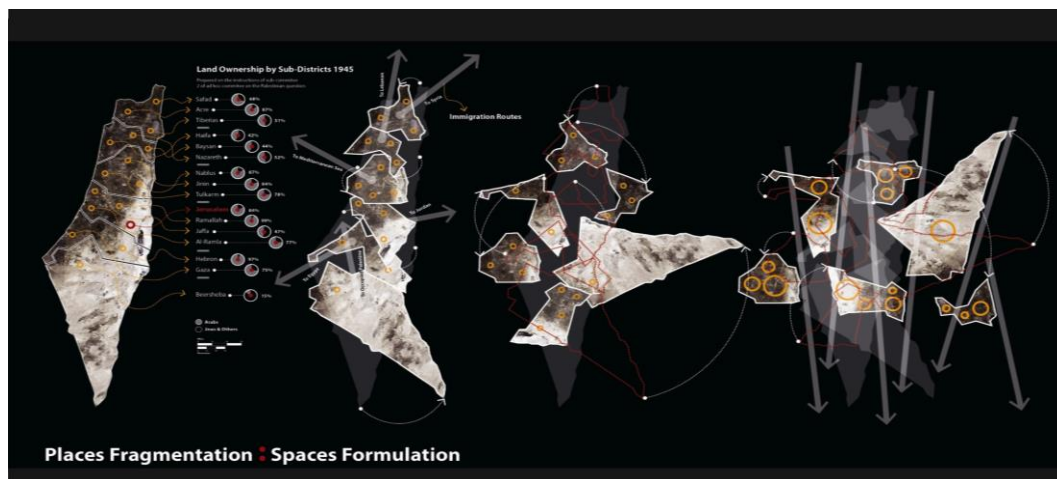


Figure 6.16: Design conceptual diagram: place fragmentation, space formulation

Earthquake has been used as a metaphor for Al-Nakba because of its means of displacement, migration and destruction. Given the strong transactional relationship



between refugees and landscape, the Palestinian immigration movement, as a result of Al-Nakba, could be described as a sudden release of energy in the earth crust, which creates the 'seismic waves' that cause the landscape to move together with the movement of its people. This landscape plate's tectonic movement is controlled by the re-orientation of the six routes of displacement directed toward the Palestinian homeland along with the hope of return. Moreover, these routes serve as a datum for the arrangement of the six landscape plates and their new layout. The 'epicentres' of this earthquake are the destroyed cities and villages from which refugees fled. These plates and routes of displacement will be the basis for designing the memorial park and the underground museum spaces. The memorial park and the museum are formulated into one system and are inseparable.

In his poetry, Mahmoud Darwish used the metaphor of landscape as a human body in the case of Palestinians, and vice versa. It is the expression of the highest level of transactionalism. This strong connection between landscape and people has been translated into the architectonic design concept of the project. His poetry is the narrative of the homeland, the refuge of the lost souls and the existence of the absence, in which landscape and geography are the structures of their occupant bodies, and alive with their souls. In his famous poem titled *The Land*, Darwish writes:



Figure 6.17: Mahmoud Darwish (1941-2008)

*'I name the earth the extension of my soul*

*I name my hand a pavement of my wounds*

*I name the gravels the wings*

*I name the birds the almonds and figs*

*I name my ribs trees*

*And I take a branch from the fig of the chest*

*And I throw it as a stone*

*And I explode the tank of conquerors'*<sup>59</sup>

In the same poem, he also writes:

*'O, those who are departing to the mountain of fire*

*Pass on my body*

*O, those who are departing to the Rock of Jerusalem*

*Pass on my body*

*O those who are crossing on my body*

*You shall not pass*

*I am the earth in a body*

*You shall not pass*

*I am the earth in its awakening*

*You shall not pass'*<sup>60</sup>

### **The submerged museum**

*Exhibition rooms and chambers of voices*

Underground in the museum, the tectonic landscape plates represent the temporary and permanent exhibition rooms, library, conference centre and other facilities, while the major Palestinian cities on the map (acting as the earthquake's epicentres) will be rebuilt as cone-shape spaces, called chambers of voices, hosting the oral history archival interviews and also facilitating the recording of new interviews with Palestinian visitors (see Appendix A). Also, they will be open to the memorial spaces and the sky from the top, allowing the recorded voices of refugees to resonate in the museum and the park. Sounds of voices will have a pull factor, dragging the visitors of the park down to the museum, where they will start crawling through spaces in the dark.

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<sup>59</sup> Mahmoud Darwish, *The Poem of The Land*. Retrieved on 7 November 2013 from: [www.adab.com](http://www.adab.com). Translated by the researcher. See the Arabic version in Appendix A.

<sup>60</sup> Mahmoud Darwish, *The Poem of The Land*. Retrieved on 7 November 2013 from: [www.adab.com](http://www.adab.com). Translated by As'ad Abukhalil.

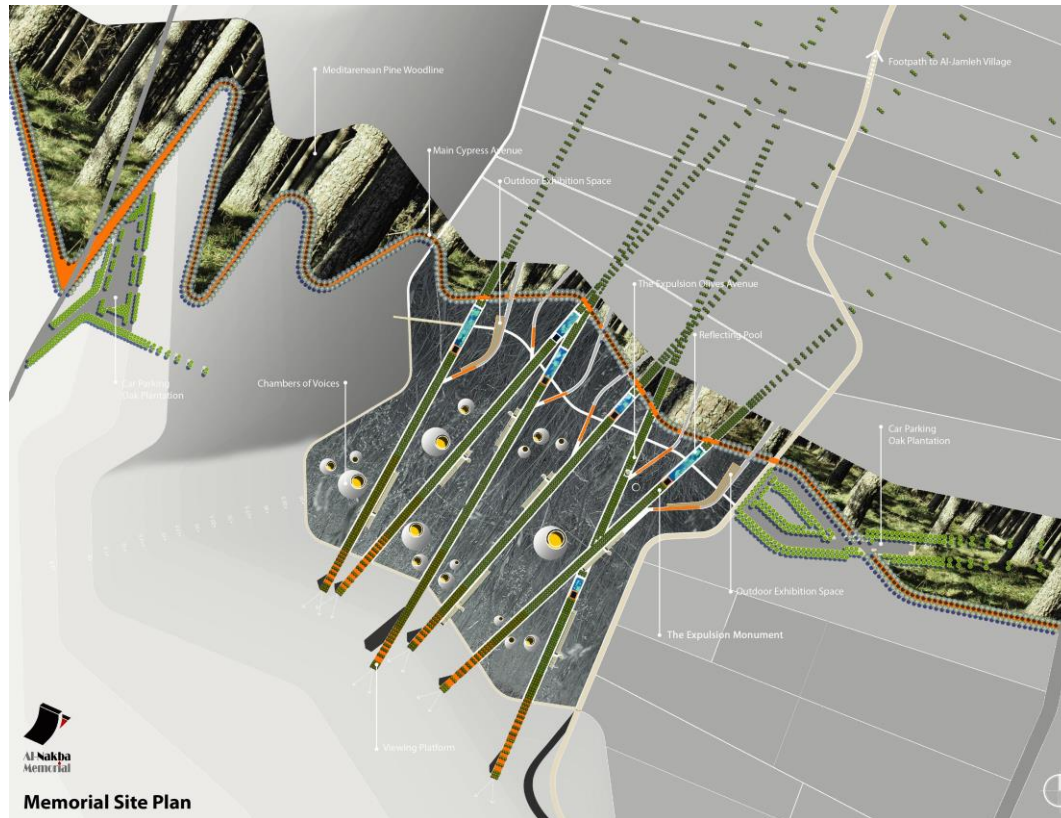


Figure 6.18: Site master plan

### *Corridors of Displacement*

The six routes of displacement are transformed into long dark museum corridors that start with the Expulsion Monument and end with the Viewing Platforms toward Golan Heights and the Palestinian Landscapes. The Palestinian Nakba archival photos will be pinned up on the wall of these corridors by the refugees themselves, climbing ladders that echo the ones used for picking olives in the homeland. This photo display, together with the oral history interviews, represents Palestinian collective memories and narratives (see Appendix A).

### *Expulsion Monument*

As a manifestation of the refugees' expulsion from their homeland, a piece of land at the ground level at the beginning of the route of displacement will be uprooted on 15th May of each year, marking the annual anniversary of Al-Nakba. 'I name the earth the extension of my soul ... I name my ribs trees', Darwish says. This event of land uplifting, accompanied by a waterfall from the upper pond in the park down to the lower one at the museum level and the sounds of rushing water and creaking wood,



create an accelerating dramatic sensory experience, carrying the pain of the wounded landscape (see Appendix A).

#### *The platforms of hope*

At the end of each corridor of displacement is a viewing platform to the occupied landscape. The light of hope emitted from these windows will be visible along the dark corridor, giving a mysterious sense of discovery and curiosity to the visitors.

#### *Lights of destroyed villages*

More than 500 villages were destroyed in the 1948 Nakba. Beams of light penetrating through holes in the museum ceiling, placed around the chambers of voices, represent the destroyed 500 villages scattered around the Palestinian landscape (see Appendix A).

#### *Architecture and landscape amalgam*

As the architectonic of the geographic plates and the routes of displacement deliver a structure in which both park and museum design were constructed on different levels, this project fully examines the highest possibilities of interaction between architecture and landscape. The visitor's journey through this project starts in the memorial park, going through a rich sequence of experiences from an open park field with the annual rise of the expulsion monument, displaying different Palestinian trees and plants, along the olive avenues of displacement, to the underground network of dark spaces.

### **The memorial park**

The park consists of a flat surface planted with avenues of olive trees along the top of the corridors of displacement, leading to the ground level viewing platforms. A Mediterranean pine forest creates a backdrop for these straight avenues and the main access path of oak trees. The olive trees at the top of the Expulsion Monument are supported by a cabling system, coming into horizontal positions (see Appendix A). Circular holes in the ground open to the chambers of voices, connecting the underground museum with the upper memorial park. Palestinian voices will resonate all over the park, where people and landscape are blended in great harmony. (See The CD for the detailed design portfolio)

# **CHAPTER SEVEN:**

## **Design Exhibition Data Results**

## 7.1. Introduction

This research by design used the exhibition as a means of research. The mixed nature of these research outcomes help utilise exhibition as a means of communication; this is widely used in art and design fields and is backed by a well-established literature on museum studies, collection and curatorial practice (e.g. Pearce, 1994). The idea of research exhibition and its potential for communication was discussed in a paper by Rust and Robertson (2003). Exhibition in design research has evolved out of the aim to make research more relevant to professional practitioners and feed back into practice.

The interrelation between research and practice in this study brought to light many issues with regards the definition and outcome of research and design, and how they relate and

interact with each other. With regard to the research process, AHRC has stressed the importance of the research question/s, context and approach, and highlighted its contribution to knowledge that is original and communicable (2005). While there are definitions of what constitutes research, there is no clear one relating to practice. However, Schon (1991) stated that it might be a personal investigation, while Carroll



Figure 7.1: Design exhibition poster

(1999) said it is personal experience, worldview or expression targeting a specific audience or users.

This current study combines both systems in a way that utilises the definitions of research context, questions and user/audience surveys, in addition to design outcome and exhibition as personal investigation and original contribution to knowledge. The design exhibition took place in Tent Gallery at Edinburgh College of Art from 7th-14th October 2013, and attracted more than 200 visitors. It was publicised through posters, flyers, the University of Edinburgh mailing system, the Edinburgh College of Art website and other social media websites such as Facebook (Figure 6.19).

## **7.2. Exhibition visitors' questionnaire**

The researcher distributed the questionnaires during the seven-day exhibition, asking visitors to fill them in at the end of their visits. An introduction to the survey and its aim and importance for the research was addressed in the researcher's exhibition opening speech. The total number of valid questionnaires collected was 38 (n=38).

As described in Chapter Four, the questionnaire consists of one A4 page and includes nine questions:

1- Design outcome; 2- Design appropriateness; 3- Importance; 4- Design Didacticism; 5- Design Catharsis; 6- Visitor's design preference; 7- Visitor's suggestion for improvement; 8- Other comments; 9- Optional demographic information including name, gender, nationality, profession and email (Figure 6.20).



## Visitor's Survey for Al-Nakba Memorial Design Exhibition

All information in this survey will be kept confidential and used only for research purposes

Please answer the following questions on 5-point scale: 1= Not at all. 5= Very much

1- Do you like the overall project design?

1	2	3	4	5
---	---	---	---	---

2- Do you think the design is appropriate as a commemoration for Palestinian Nakba/displacement?

1	2	3	4	5
---	---	---	---	---

3- How important is the Palestinian Nakba memorial concept for you?

1	2	3	4	5
---	---	---	---	---

4- How informative/educational is this project design for you?

1	2	3	4	5
---	---	---	---	---

5- How healing/cathartic do you think this memorial project will be for its visitors (after construction)?

1	2	3	4	5
---	---	---	---	---

6- What aspects do you like most about the project design?

a .....

b .....

c .....

7- What aspects do you think could be improved in the project design?

a .....

b .....

c .....

8- Other comments:

a .....

b .....

9- Other information (Optional):

Name:

Gender:

<input type="checkbox"/>	Male	<input type="checkbox"/>	Female
--------------------------	------	--------------------------	--------

Nationality:

Profession:

Email:

*Thank you very much for visiting the exhibition and for completing this survey*

Figure 7.2: Exhibition visitors' questionnaire

### 7.3. Exhibition visitors' questionnaire analysis and results

#### 7.3.1. Quantitative data

The number of male respondents (n=10) was smaller than the number of female respondents (n=22). The number of respondents who did not specify gender was 6 (n=6). The researcher is not sure whether this result represented the actual proportion of male and female visitors.

Table 6.1 represents the score means of the first five questions of the visitors' questionnaire, which provided quantitative data for five personal and memorial dimensions. The highest scored were design *appropriateness* and *outcome*, with score mean values of 4.74 and 4.71 respectively. The third highest dimension was *didacticism* and the level of information design provided about the commemorated event, with a score mean of 4.39. *Catharsis* came fourth with a score value of 4.24. Lastly was *importance* of the memorial (3.95), as some visitors were from different backgrounds and not familiar with the Palestinian Nakba.

Table 7.1: Score means of five-point scale questions of the exhibition visitors' questionnaire

Memorial values	Question 1	Question 2	Question 3	Question 4	Question 5
	Outcome	Appropriateness	Importance	Didacticism	Catharsis
Score mean	4.71	4.74	3.95	4.39	4.24

#### 7.3.2. Qualitative data

Similarly to the research users' questionnaire, the one for the exhibition visitors utilised a mix of open-ended and closed questions. Table 6.2 presents the responses to questions six (design preference) and seven (design improvement) of the questionnaire.

Table 7.2: Exhibition visitors' questionnaire responses about design preference and suggestion for improvement

Visitors' preference			
Categories		Responses	
Design elements	Underground museum	5	1-The interplay from light to darkness 14- The underground structure 22- Use of the underground structure 24- The underground passages gave me the feeling of how deep the Palestinian Nakba was 27- Darkness and underground
	Landscape/ Ecology	9	9- Ecological solution 14- The landscape 15- Including nature 21- Incorporation of plants and animals 27- Landscape design and no building on the ground 28- Perforation of hillside with different layers, light, water... 32- The rhythmical tree corridors 32- The periodicity interruption of those corridors 37- Use of flora
	Keys installation	9	8- The symbolism of the keys in the model 10- Keys resemble destroyed homes 11- The symbol of right of return (The keys) 19- The hanging keys 22- Really like the use of keys as a symbol of forced Palestinian leave

			<p>25-The keys of return concept</p> <p>30- The keys</p> <p>33- The keys</p> <p>34- Keys</p>
	Design main concept	<p><b>1</b></p> <p><b>8</b></p>	<p>3- Well executed/every detail has rationale...</p> <p>4- Concept of hidden memory (overlaying very interesting)</p> <p>6- The concept is unique</p> <p>7- Interesting approach</p> <p>8- The idea about 6 lookouts over the valley</p> <p>10- Idea of intertwining landscape with architectural space</p> <p>11- The idea and the concept itself</p> <p>12- Chambers are in shape of the fractions of state</p> <p>13- Major cities represented</p> <p>15- Different layers</p> <p>16- Conceptual development</p> <p>17- The layout plan</p> <p>18- The concept of displacement memory</p> <p>19- The story behind it</p> <p>21- Story design!</p> <p>28- Perforation of hillside with different layers, light, water</p> <p>31- Its connection to the land</p> <p>37- Dissection of space by axis</p>
	Corridors of displacement	<p><b>7</b></p>	<p>9- Tunnels and viewing platforms of the end</p> <p>12- The tunnels with views facing Palestine</p> <p>13- Tunnels facing Palestine</p>



			38- The symbolism of the corridor of suffering, the light of hope, etc.
	Expulsion monument		8- The lifting tree structure 9- Moving mechanism 12- Expulsion monument
	Final design outcome	4	7- Good design 7- Final product has been thought out very well 25- The design itself 28- Using landscape/structure to explain memory/emotion
Didacticism and memories			7 1- Keeping memories and connecting them 2- The fact that middle eastern war/chaos is focused on 2- It is about different affairs that read to be recognized... 3- Underlying concept - potential to inform people/make people aware ... 28- Using landscape/structure to explain memory/emotion 29- I like the idea as a whole! It is raising a very important matter in our modern history 37- Beautiful photo series works to improve educational elements!
Catharsis			5 3- Emotive... 16- The emotional attachments of the project 16- It was a very unique experience and I was touched and overwhelmed 26- Emotive quality of the project 28- Using landscape/structure to explain memory/emotion
Presentation and exhibition			1 6 4- Model is very nice 4- Good photos

		<p>6- The presentation is very nice</p> <p>6- The description around the posters is very informative</p> <p>7- The different media used in the presentation (especially music-poem)</p> <p>10- Nice model</p> <p>16- The overall presentation of it</p> <p>18- Fantastic graphics and model presentation</p> <p>19- Photographs</p> <p>20- I enjoyed photographs and collages. I think that these different aspects form a very convincing whole as a project.</p> <p>25- The pictures archive</p> <p>26- Representation of the drawings</p> <p>29- Presentation and sculpture works are excellent</p> <p>32- The music in the background transported me to Palestine as well (visual and audio interaction)</p> <p>33- How it is exhibited</p> <p>37- Beautiful photo series works to improve educational elements!</p>
Generic comments	7	<p>2-The fact that the project is so personal to the architect</p> <p>11- The mentioning of Mahmoud Darwish and Naji Al Ali</p> <p>14- The interactive aspects</p> <p>20- I especially liked its literary aspect</p> <p>28- Monumental scale and setting</p> <p>28- Good to see project pushing boundaries of expression!</p> <p>33- Factionalism</p>
<b>Visitors' suggestions for improvement</b>		
4- More defined space for community to socialize, maybe ...		

6- Bigger scale of posters/light

6- You could have used the windows

8- Bigger font on the plan

9- Movement on the top of the park

9- Accessibility and other facilities

11- A bit more information and background

17- The flow of the memorial from the start to the end of the journey

19- Make bigger wording for easy to read

22- Maybe the link between each corridor (could be confusing for visitors to get from one place to another one)

28- Clearer exploration of exhibition space- how is it going to be legible to Palestinians and others

32- It would be nice to have some written testimonials of those who experienced the displacement. For example, of your mother!

32- It will be also interesting to know a little bit more about your personal reasons for doing this exhibition (e.g. how this displacement affected you as a child, teenager and adult).

34- Apply it to the macro + micro scales

34- Examining why each piece is where it is

34- A map to identify all easily

#### **7.4. Summary of results**

The exhibition received a total of 200 visitors during a period of seven days. The overall *success* of the project and its *appropriateness* as a commemoration for Palestinian displacement were scored the highly by visitors, among other aspects of didacticism, catharsis and importance. Visitors thought that the design had high educational/didactic values through its symbolism and references to Palestinian Nakba, expulsion and its cultural and geo-political contexts.

The most frequently mentioned aspect in the visitors' comments was the quality of exhibition curating, presentation and the return keys installation. The perception of the design symbolism and the reference to Palestinian cultural and natural landscape were highly valued by the visitors. Despite the designer's intention to create a design expression of the objective notions of Palestinian Nakba, the project was personal to each visitor, and the meanings emitted were self-interpreted by each individual based on their background and historical knowledge.



## **PART THREE: DISCUSSION AND DESIGN RE-EVALUATION**

# **CHAPTER EIGHT:**

## **Discussion, Design Recommendations and Conclusion**

### **8.1. Introduction**

Chapters Five, Six and Seven described the findings from the data collection and the outcome of the memorial design project. This chapter discusses the main research findings obtained from the entire investigation (users' questionnaire, behavioural observation and research by design project). It is designed to answer the research questions defined in Chapter Three and proposes recommendations for memorial landscape architectural design; it ends with the conclusion, study limitation and areas for future research.

### **8.2. Discussion of research questions**

The discussion will compare the findings from the literature review and the results, which are obtained by using the three research methods (memorial users' questionnaire, behavioural observation and research by design) and based on the three research questions as follows. The results of the design project were revisited and re-evaluated based on the comparative analysis findings of the three memorials. The results will be presented according to three memorial typologies: anti-phallic/playful, ceremonial/phallic and allegorical.

#### *8.2.1. Research question one*

**What are the memorial design aspects that contribute to the success of contemporary memorial landscapes from the views of memorial users and their design preferences? (Based on the users' questionnaire of three memorial typologies)**

*Predictors of memorial design success*

The results from the data analysis of the three memorials showed that the predictors of the success of the memorial visit vary based on the approach to memorial design and the importance of the commemorated subjects. The success of a memorial in this study context is related to the impact it has on people's experience and perception, rather than its mere physical and spatial design attributes. Memorial success criteria is related to the following values:

*Playful and Anti-Phallic memorial: Princess Diana Memorial Fountain*

The success of this memorial design was scored highly by participants and was the second highest variable after enjoyment among SPPCV dimensions (mean=4.1). The number of women (n=55) was higher than men (n=45).

*Memorial as a high-quality public space*

The questionnaire data from PDME, which was categorised by the researcher as a contemporary anti-phallic memorial with a sense of playfulness,<sup>61</sup> showed that the satisfaction of visitors depends on reflection and the affordances of strolling and social activities. This is related to the way memorial encourages people to think, reflect and remember without emitting a direct message or informative figures, and at the same time enjoy the memorial as a social public space. The majority of the users considered their visit very successful and enjoyable. In this type of memorial, it is the site's users and preferred design elements that make the place vibrant and dynamic, for example cascading and bubbling water. The grassy area used for playing, navigating the space and picnicking was highly preferred by the users.

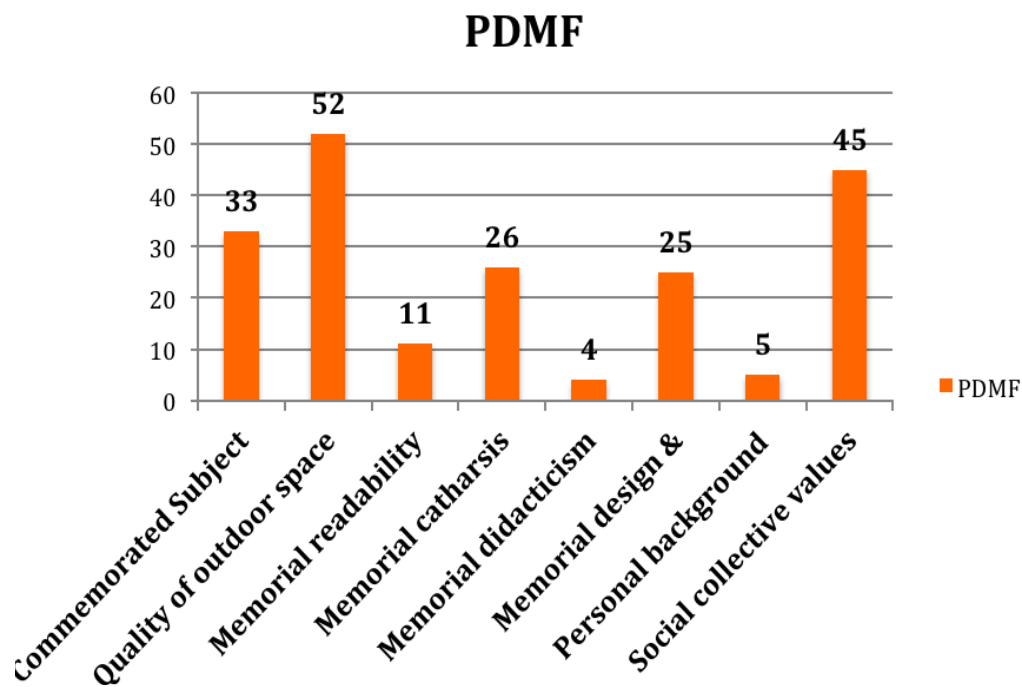
At such memorials, where most activities are family-oriented and the majority of users are women and children, memorial elements should be designed to encourage family interaction and engagement. This design was not intended to teach about the commemorated event, but to soothe and encourage thought over time. For this type of memorial, presenting the place as a social collective theatre is a key aspect of

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<sup>61</sup> See the conceptual design description of the three case study memorial sites in Chapter Four.

memorial success. Graph 8.1 shows that the memorial's high quality as an outdoor space and its social collective values were the most mentioned aspects in participant responses.

To a question about the importance of the memorial subject, PDMF11, a participant at the Princess Diana Memorial Fountain answered: 'I do not know too much about the memorial, I went because it is a nice outdoor space.'<sup>62</sup> Another participant answered: 'Appreciate it as a nice part of park where friends and families get together more than as a memorial.' (PDMF29). In relation to social interaction with memorial elements, another participant described how the place brought together people from different social and cultural backgrounds: 'It was a lovely sunny day and there were people enjoying the environment from all walks of life, age, culture, societies, etc.' (PDMF14)



Graph 8.1: PDMF qualitative response categories

In terms of design affordances, memorial elements that encouraged navigating space, freedom of movement, observation, contemplating and reflecting on the memorial event, for example paths and grassy areas, played a key role in the memorial's

<sup>62</sup> See participant responses to the open-ended questions in Chapter Five.



performance of its duty. Based on the visitors' preference correlation result, success correlated to the description plaque and the reflective pool. However, from the behavioural observation analysis, the number of affordances for the description plaque showed that it was one of the lowest behavioural settings. The researcher expected that visitors would prefer the reflective pool, as it afforded playfulness and family water activities, and it was popular among all visitor groups. PDMF11 wrote: "It was adequate for what we went there for, which was to have a sit & a paddle."

#### *Memorial as a social theatre*

Through her studies of the politics of memory, Kathryne Mitchell asserts that memory is acquired through social interaction and is thus subject to 'social construction'. Furthermore, she highlights that there is a 'deep politics to memory', and argues that 'each age attempts to refashion and remake memory to serve its own contemporary purposes'.

The frequency of participant responses to the PDMF open-ended questions relating to social aspects was high (n=45; see Graph 8.1). Participant PDMF29 wrote about the importance of the place as part of the park rather than as a memorial: 'I appreciate it as a nice part of the park where friends and families get together more than as a memorial.' Others talked about the size of the place, its appropriateness for interaction and the way memorial features allowed children to meet and enjoy themselves: 'It is interactional, great space, big so everyone can enjoy and relax around it' (PDMF8). 'We enjoy the water feature and my boy has fun meeting other kids' (PDMF27).

According to the findings, such memorial, with its neutral and abstract forms as a fundamental design approach and its sense of timelessness, acts as a theatre for people of different ages and cultural groups to refashion the place through social interaction and engagement. The problem with collective memory, which is represented through the works of traditional memorial, can be that it denies an individual's memory of the past and replaces it with the accepted collective memories of the society. PDMF is a free and flux expression of both individual and collective memory.

#### *A memorial for a great cause*

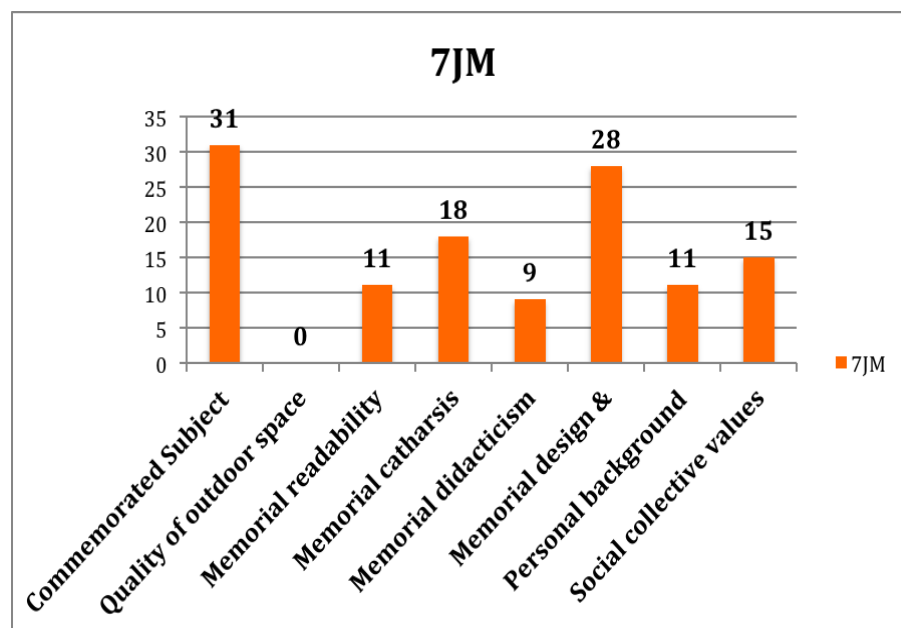
The subject of any memorial plays a significant role in engaging people and in being celebrated as part of the rituals of certain society. The importance of the memorial event for people correlates highly to the success of the memorial.

In the PDMF questionnaire responses, the subject of memorial was mentioned 33 times. Princess Diana was without doubt one of the most famous figures in the world. In 1999, she was named by TIME as one of the 100 most important people of the twentieth century, and ranked third on the BBC's poll of the 100 greatest Britons.

Respondents expressed how memorial features helped them to remember Diana and her legacy, and also how their admiration for her encouraged them to visit. Participant PDMF20 wrote: 'It reminds me of what a wonderful woman Diana was', and PDMF21 described her as 'The most human royal ever.' Another participant wrote about why he felt he belonged to that place: 'Diana was an international icon, so this memorial is important worldwide' (PDMF8).

#### *Phallic/Monumental Memorial: 7 July Memorial*

For the second typology, phallic memorial, the numbers of male and female participants at 7JM were almost equal, and the score of success was the highest among the SPSCV variables (3.9). Users' satisfaction is not only dependent on how memorial makes people think and reflect, but also on the degree of design clarity and



Graph 8.2: 7JM qualitative response categories

readability. The memorial design elements of 7JM that afforded touching (memorial columns and names plaque), thinking about the tragic event and contemplating were important to its success.

#### *Memorial and transactional views*

Stokols and Shumaker (1982) illustrated a 'holistic taxonomy of places' that link their geographical and physical properties with actors, psychological processes and social and cultural meanings. This was strongly related to the 'subjective life stage' of context that Stokols (1981) had used. The use of 'context', spatially and temporally, is related to participant intention, goals and personal activities and processes. In the light of transactional theory, places gain their meanings from people, and vice versa.

The qualitative response data analysis showed that the memorial's commemorated subject was the most mentioned dimension, followed by memorial design aesthetics (see Graph 8.2). This was also supported by the variation in nationality shown by the quantitative data, and the significant difference between British participants and others in terms of memorial importance. The 7th July terror incident was the worst attack in London since the Second World War. It killed and maimed old and young; Britons and non-Britons; Christians, Muslims, Jews, those of other religions and none. However, Britons and Londoners in particular were the most affected. 7JM7, a British citizen, described how important the memorial was for him: 'I was involved with the events around 7/7/05, and also live in London'. Another wrote that he was attached to the memorial because: 'One of the explosion places was not far from my place. It is on my way to university. I could easily be one of the victims' (7JM19).

Some non-British participants expressed the opinion that the 7th July incident was irrelevant to them or that they did not lose anyone they knew. Participant 7JM11 said, when asked how much he was attached to the memorial: 'I don't have a personal connection with it.' Participant 7JM1 said, when asked how cathartic the memorial was for him: 'I don't feel comforted. I had no personal connection. I do think it made me feel sad that the event occurred.' Others commented on the memorial's importance to all humanity. 7JM19, 7JM3 and 7JM11 wrote respectively: 'I do sympathize with the victims.' 'Not important to me personally, but important that

those who died are remembered.’ ‘For foreigners (we are Germans) it is good to remember this event.’

#### *Memorial and the aesthetic quality*

Out of 28 comments about the memorial design and aesthetic quality, only four were negative. A few participants described the design as a repetitive cloche with preconceived results. 7JM23 commented: ‘It is like Holocaust memorial in Berlin so nothing new’, and 7JM22 said: ‘Nothing exciting about it.’ 7JM23 stated that it was too simple: ‘Why it should? Nothing there apart from columns.’

On the other hand, the majority of participants appreciated the beauty of the concept. Participant 7JM3 described the attractiveness of the memorial: ‘It caused me to stop and think, also I like the way it is designed.’ Others liked the symbolism its elements represented: ‘I like the symbols each column expresses’ (7JM8); ‘It’s elegant’ (7JM9); ‘Enjoy the strong symbolism of columns’ (7JM21); ‘It is stark and beautiful in its simplicity’ (7JM22).

#### *Memorial as a transactional text*

The researcher earlier presented an analogy between memorial and text in its transactional relationship with the reader. In the study of transaction in the event of reading, the focus is on the action of reading rather than the independent text and reader. It is what the text allows the reader to think, and what the reader interprets and adds to the meaning of text. Rosenblatt claimed that the emphasis on ‘feelings and creativity’, which shape the reading process, gives the reader a unique effective role (1994).

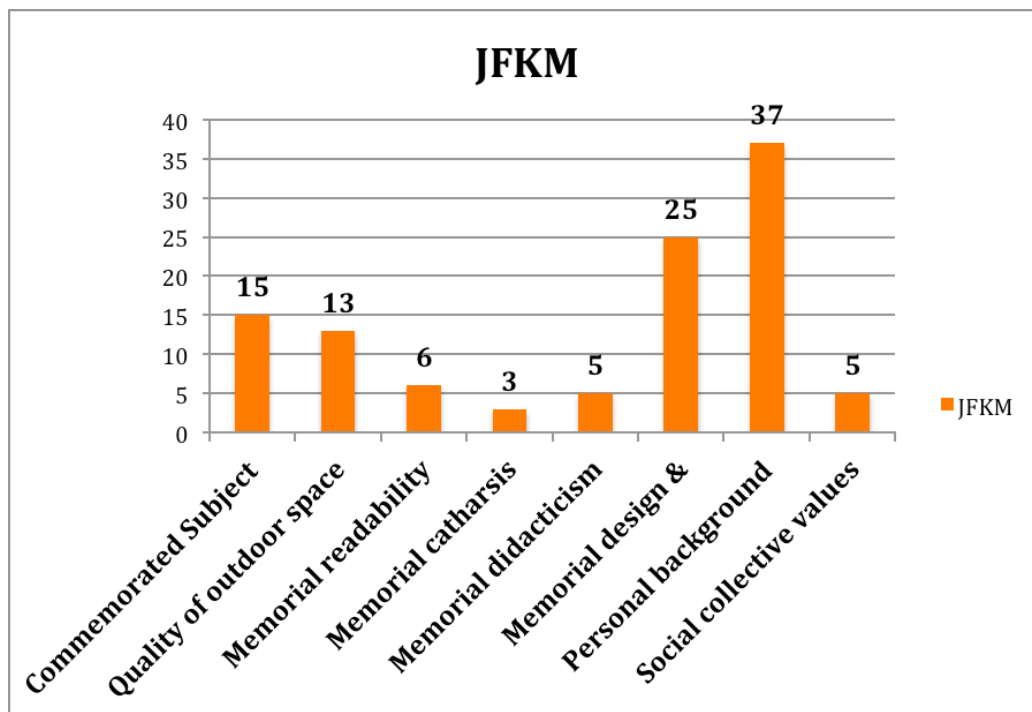
The memorial symbolism was appreciated by most of the participants, and the didactic value was scored highly (mean=3.7). As described above, the data analysis showed that the success of the memorial experience strongly correlated to the readability of its symbolism and meanings. Participants 7JM8 and 7JM19 talked about this symbolism respectively: ‘I like the symbols each column expresses.’ ‘I like abstract thing. I like the verticality of columns.’ Some people mentioned how easy it was to read what the design elements represented. 7JM1 wrote: ‘It seemed quite clear:

a column for each victim'. 7JM3 said: 'I am guessing there is one pillar for each person who died saying where and what time.'

#### *Allegorical Memorial: John F. Kennedy Memorial*

At this memorial, with its combination of poetics, narratives and philosophy in addition to its allegorical and contextual landscape design, the visitors varied in their perception of memorial elements. The memorial is both a ritual place for locals and a tourist destination.

The general success scored (3.9), the highest of the memorial SPSCV dimensions. Similarly to 7JM, data analysis showed that the key aspects of memorial success were related to both its cathartic and didactic quality (see Chapter Five). The secret behind visitors' appreciation of this memorial was the multitasking it performed simultaneously on cathartic, didactic, place belonging and readability levels. Moreover, it offered the highly interactive activities of strolling and navigating, touching, thinking, contemplating and expressing one's self.



Graph 8.3: JFKM qualitative response categories

#### *Memorial Catharsis: The restorative quality of nature*

From the visitors' point of view, one of the key aspects of memorial identity was its grieving and cathartic quality due to its natural setting. JFKM20, a visitor to the memorial said: "Sense of calm." Others described the beauty of its landscape. JFKM10 wrote: "It is a quite natural place of contemplation." JFKM25 said: "The successfulness of the memorial was surpassed by the beauty of the surrounding area" (see Graph 7.3).

In an article in the *Telegraph*, Tim Richardson wrote that the secret of the John F. Kennedy Memorial's success is the healing process through the landscape experience: "the secret to the Kennedy Memorial's success is the fact it is not so much a memorial as a memorial landscape. It's all about movement through space, followed by stillness. The memorial stone itself is only one element of this designed landscape. It's essentially a walk uphill through woodland, the path emerging at the monumental stone with views back down across the river."<sup>63</sup>

#### *Memorial didacticism: The power of the past*

The John F. Kennedy Memorial provides an opportunity to learn lessons from the past and apply them to the present day to create a better future for the next generation and keep memories alive. Despite its importance and its realisation by Sir Geoffrey Jellicoe, the UK's most celebrated twentieth century landscape architect, the Kennedy Memorial is still one of the most under-valued and under-visited memorial landscapes in the country.

As shown by the empirical data, another secret of the success of the memorial relates to the history and information, unfolding through the journey the visitors take, that encourage them to linger and contemplate the historical scene, a man and that for which he stood. Visitors can read information about the memorial on the description plaque at the memorial gate, and the stone inscription of a quote from John F. Kennedy's inaugural presidential address of January 1961.

#### *8.2.1.1. Variations in gender, visiting companion and familiarity*

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<sup>63</sup> Retrieved on 12<sup>th</sup> August 2015 from:  
<http://www.telegraph.co.uk/gardening/gardenstovisit/10451578/The-JFK-memorial-at-Runnymede-is-fit-to-stand-forever.html>.

The literature of memorial design and the study of memory do not describe the possible differences of gender, visiting companion or level of familiarity with the design concept in terms of memorial perception of physical attributes (external representation) and relation to people's mental attributes (internal comprehension of memorial). Lazarus (2006) described the theory of transaction, which looks at perception and behaviour toward an environmental stimulus as a product of the interplay of two sets of intertwining variables, those in the immediate environment and those of the person. Prior to conducting the data collection, the researcher hypothesised that significant differences could exist in relation to the three types of memorial presented in this study.

*Gender, age and memorial emotional response*

In the first case study of PDMF, an anti-phallic playful memorial, the research findings show that women and children are more likely to enjoy the place, play with water and have a successful visit than men. At such memorials, elements and features that attract women and children should be taken into consideration to create an attractive environment for family playing and socialising. 7 July Memorial was also more important to women than men, and they were more likely to remember, think and contemplate the event. At JFKM, women were also more likely to be attached and value the importance of the memorial than men. It is also more readable and cathartic for them. The researcher has linked this to the self-expression and emotional engagement that women had with a memorial place, which made it more cathartic and grief-related for them.

This finding motivated the researcher to explore literature on possible gender differences in relation to emotion and memory. The literature showed that women often consider emotional events to be more emotionally stimulating than men do. This study result is compatible with large-scale research led by Annette Milnik at the University of Basel. The research team found that women rate emotional images as more emotionally stimulating than men do, and are more likely to remember them. Also, an earlier study showed that 'emotions influence our memory: the more emotional a situation is, the more likely we are to remember it' (Prigg, 2015).<sup>64</sup> This raised the question as to whether females outperform males in

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<sup>64</sup> Retrieved on 9<sup>th</sup> November 2015 from:

being attached to memorial events due to the way they process emotions. This study helped to answer this question within the context of contemporary memorial landscape.

#### *Collective memories*

In terms of visiting companions, there were significant differences between groups, families and individuals. At PDMF, groups and families were more likely to like and enjoy the water and grassy areas for picnics than people who visited the memorial alone. Leung (2011) stated that, in traditional monuments, 'the representation is authoritatively dictated to society as a legitimated truth about the past' (2011). At this memorial, authority was given to the public to deliver their own interpretation of the past and memorial narratives that were simultaneously expressed in their place engagement and interaction. Such memorials should be open and spacious in order to accommodate a large number of people. In contrast, at the 7 July Memorial, with its monumental presence and phallic forms, individuals and couples were more likely to become attached to and read the symbolism of the memorial than groups. Meanwhile, at the allegorical JFKM memorial with its natural landscape narratives, people who visited the memorial alone were more likely to enjoy the memorial and feel its catharsis than families or group visitors.

#### *Cognitive affordances*

At PDMF, visitors with preconceived knowledge about the memorial design were more likely to value the memorial highly than people visiting it with fresh eyes. This matches the fact that people who consider memorial important tend to search for more information about it before their visits. At both PDMF and 7JM, visitors who were familiar with memorial design were more likely to understand the memorial symbolism than other visitors.

Based on the theory of cognitive affordances, the cognitive activity of memorialisation at these two memorials is affected by internal and external artefacts, distributed among visitor groups and across space and time. The ways memorial events were presented by various sources of information affected the way they were perceived



during the memorial visit. However, as Zhang and Normal described, external representation is not merely an input or a stimuli for the internal mind, but an intrinsic component without which activities cease to exist (2006).

### *8.2.2. Research question two*

**How do memorial users respond to memorial behavioural settings and how is that reflected in their behaviours? What are the most heavily used behavioural settings preferred by the visitors? (Based on behavioural observation).**

In the contemporary memorial context, architects, landscape architects and designers are likely to put aesthetic value high on their list of priorities. In contrast, based on the results of the questionnaire and behavioural observation, users evaluate memorial not by its aesthetic quality but by its affordances. At the PDMF site, where the majority of users are children, the place must be judged by the way users interact with its settings. Its playful affordances were what made the memorial so popular among children. Sebba describes children's settings as follows: 'children judge the natural setting not by its aesthetics but by how they interact with the environment' (Sebba, 1991, quoted in White and Stoecklin, 1998).

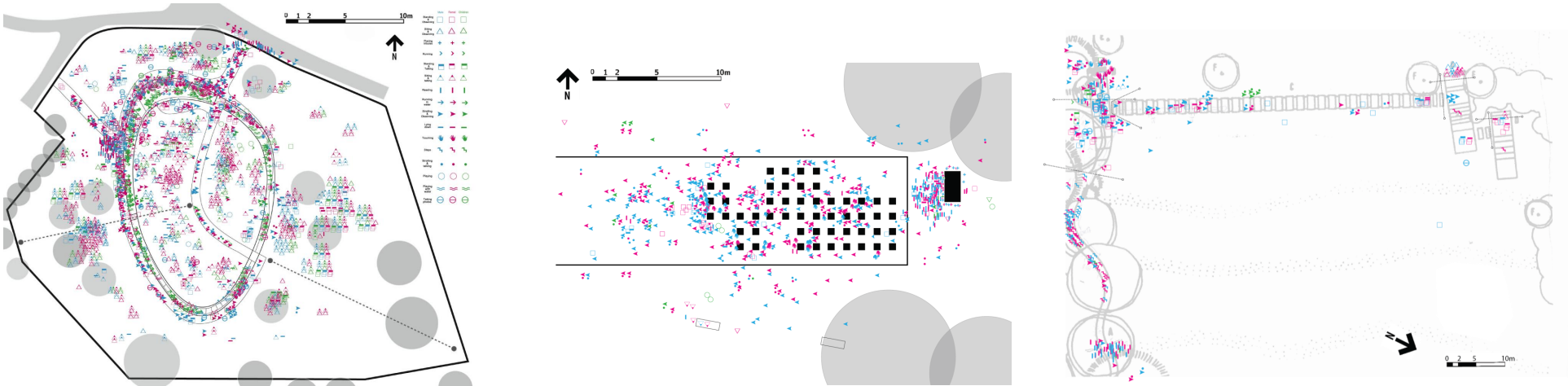


Figure 8.1: Composite maps of the three case studies (from left to right: PDMF, 7JM and JFKM)

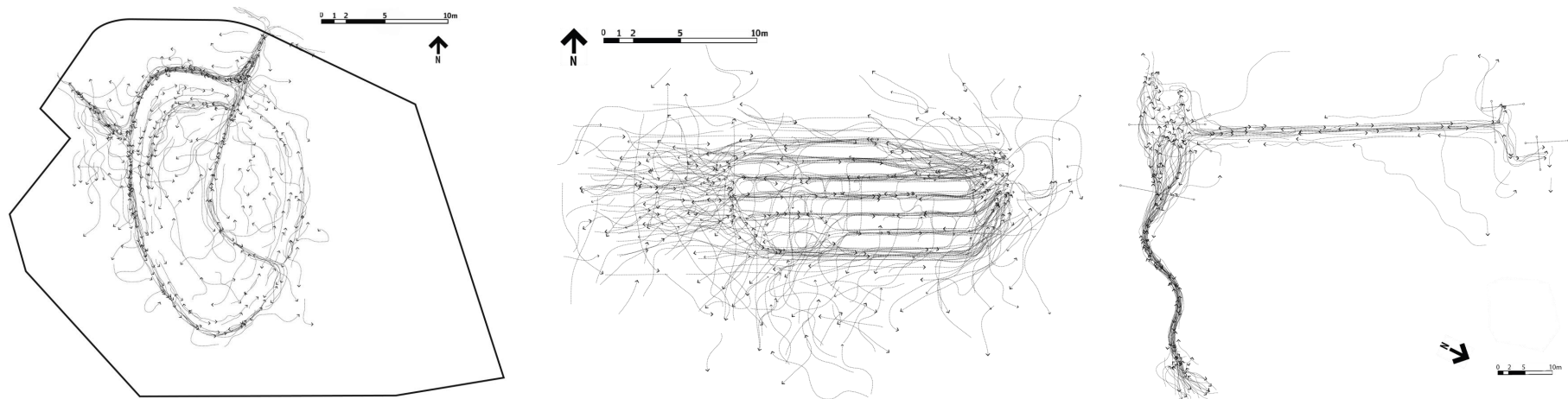


Figure 8.2: Users' motion maps of the three case studies (from left to right: PDMF, 7JM and JFKM)

For the above reason, behavioural observation aims to describe memorial not only by its design concept and spatial forms, but by juxtaposing the use patterns with its physical properties.

*Memorials as memory traces in the landscape*

As Casey states, memorial holds traces of places and landscapes, through which many stories can be read. These places have memory traces embedded in their surfaces, expressed in 'mute profusion' (Casey, 1987). Memorial enriches landscape with meanings and aids the preservation of memories. Judith R. Wasserman stresses the importance of connecting memorials to place and landscape, and points out that denying this results in disorientation or the limitation of memorial impact (Wasserman, 1998).

At PDMF, where memorial elements sit within a wider landscape, behavioural observation resulted in the memorial's surrounding landscape receiving the highest number of affordances. It was a platform for navigating places and observing other people. The surrounding landscape had 1557 passive affordances and 708 active affordances, with a total number of 2265. Pathways were mostly used for strolling and navigating the memorial, while grassy areas were used for sitting and picnics. This setting acted as a canvas for the main memorial element: the fountain. The total number of affordances at the fountain was 1186, with around 800 active affordances. Despite its distinctive form and geometry, the memorial fountain and its surrounding landscape can be read as one place.

On the other hand, 7JM has a monumental presence, and is perceived as monumental objects sitting in the landscape. This view correlates to the observation results, which showed that the most heavily used memorial elements were the *memorial columns* and the *names plaque*, with total affordances of 556 (496 active affordances and 60 passive affordances), while the *leading path*, *surrounding landscape* and *viewing benches* had only 313 affordances between them. The number of reading and touching affordances at these two behavioural settings was 141. Constructed from solid-cast, long-lasting stainless steel, each stela is unique, with individual characteristic finishes brought about by the casting process. These unique finishes, with an inscribed date, time and location for each bombing incident, encourage visitors to touch, read and interact with the memorial columns. Moreover, the absence of the victims' names on the

columns encourages visitors to continue exploring the memorial until they reach the stainless steel plaque at the far eastern end of the memorial, listing the names of the victims. This can be seen in Figure 8.2, which shows the movement of the visitors around the memorial.

### *Memorial as a landscape*

As described by Tim Richardson,<sup>65</sup> JFKM is ‘not so much a memorial as a memorial landscape’; the memorial and landscape are not separable. In contrast to the other memorials, interaction with this memorial’s features means interacting with nature, woodland uphill, the English Hawthorn and American Scarlet tree next to the memorial stone, the grassy slope down the straight path and the viewing benches shaded by shrubs at the last stop.

Runnymede’s landscape is saturated with history and memory. The marshy meadow in front of the memorial is where the Magna Carta was signed by King John in 1215, an event with obvious significance for a liberty-loving American president. The conceptual symbolism of pilgrimage’s progression, introduced by Jellicoe, was another narrative layer added to the landscape, and he wanted people to experience the memorial from the marshy meadow to the viewing benches. However, for visitors, the history of the wider surrounding site is overwhelming, and this requires them to spend longer at JFKM, or revisit it many times, in order to perceive it in its complete and intended form and to meet the designer’s vision. According to the questionnaires, 57% of participants were visiting JFKM for the first time. The researcher believes that this is the reason behind the low number of affordances at the straight path and the benches, as people did not know that they were parts of the memorial (see Figure 7.3). The majority of visitors spent their longest period of time by the stone, and then turned around and went back to the entrance, as they thought the stone was the only memorial element. Jellicoe invited visitors on a journey resembling the pilgrimage’s progression, which would be perceived and experienced by their subconscious over a period of time. It is a subtle and humble representation

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<sup>65</sup> Retrieved on 12<sup>th</sup> August 2015 from:  
<http://www.telegraph.co.uk/gardening/gardenstovisit/10451578/The-JFK-memorial-at-Runnymede-is-fit-to-stand-forever.html>.

of philosophy symbolised in the landscape. JFKM and PDMF are similar in the way that they can only be understood and perceived over a period of time and after multiple visits.

Despite the fact that the three case studies are not categorised as anti-memorials based on anti-memorial definition in literature, the behavioural observation and affordances recorded showed that these memorials did partly simulate some aspects of anti-memorial described by Cairn and Jacobs (2001) and Ware (2004). This occurred through the representation of social accessibility and social issue, multiple interpretations of an event, modesty, anti-monumentality, controversy, playfulness, remembrance of normal public individuals and acting as open public places.

#### *Passive and active affordances*

Generally, across the three case studies, the patterns of passive and interactive uses differ among behavioural settings or memorial elements. Memorial elements such as the fountain, memorial columns, inscribed plaque and inscribed stone have strong impacts on interactive uses such as playing, touching, reading, strolling and talking. They attracted navigation and exploration. On the other hand, the backdrop of these elements or the surrounding landscapes mostly host passive uses such as sitting, observing and standing. These settings are highly important in perceiving and appreciating memorial elements.

At 7JM and JFKM, the number of active uses was significantly higher than passive uses, whereas at PDMF, the opposite was true. This is due to the nature of the latter; it is not so much a memorial as it is an open public space for passers-by to rest and local families to picnic.

With regards gender variation relating to active and passive uses, at PDMF, women and children were more active than men, who usually engaged with the affordances of observing, strolling and photo-taking. At 7JM and JFKM, meanwhile, active affordances were dominant and both women and men were equally active with and around memorial elements.

#### *Gender/age variation*

Across the three case studies, the memorial elements that afforded interaction mainly

attracted women and children. There was a significant difference between men and women at the playful and social memorial PDMF, with 1616 activities by women, 1169 activities by men and only 666 activities by children. Women engaged with interactive affordances such as strolling, talking, reading and playing. Children were more engaged with playing and running. Men were more passive, engaging in activities such as standing, sitting and observing.

However, at formal memorials with monumental elements (the columns and the stone of 7JM and JFKM) the numbers of activities by men and women were equal, except for strolling and talking, where women's activity was higher. The number of children was significantly lower at these memorials due to the lack of playful features. For some children, these places acted as educational platforms to teach about the memorial subjects.

### 8.2.3. *Memorial comparison*

According to the above, the 7 July Memorial and the John F. Kennedy Memorial belong to both Badiou's didactic and cathartic memorial schemata. According to Joel McKim (2008), the success of a memorial design lies in its focus on either soothing or education, without trying to perform various duties simultaneously, as such a design can lose its impact on users. In contrast to this view, the results of this research show that the subtle representation of memorial's educational role embossed within the design elements of both the 7JM and JFKM memorials makes didacticism and catharsis inseparable. Perceiving information about memorial events and navigating natural landscape spaces simultaneously allows the memorials to serve both duties successfully. It is the stone inscription at JFKM and the place and time inscribed on the columns at 7JM that help to saturate the memorials with memories and stories. However, the memorial description plaques as separate elements were not the most preferred feature of the participants. Meanwhile, at PDMF, the success of the design lies only in its cathartic quality and its ability to help visitors work through their pain by introducing a landscape approach, a water feature, playful design elements and a social interactional environment. For this case study, the didactic dimension does not play any significant role in delivering a powerful memorial (see Table 7.1 and Figure 7.2).

PDMF sits within Badiou's category of memorial classical schemata, where it is designed to treat human souls and psyches. While the 7JM and JFKM data findings did not match McKim's view, this memorial design's strength was in its cathartic quality only. The memorial's approach matched Arthur Danto's notes about the way contemporary memorials have shied away from didactic tradition and moved towards a more subtle and ambiguous view of the events to which they refer. They embrace a cathartic mode of representation.

In the three case studies, women were more likely to consider the memorials important than men. PDMF, with its unique fountain design and open green space, was an attraction mainly for women and children, and they were more likely to enjoy it than men. It is a place for families and groups to spend a full day. Also, visitors who were familiar with memorial design were more likely to consider it important. Meanwhile, at 7JM and JFKM, women were more likely to remember, contemplate and be attached to memorial events than men. At these two memorials, individuals and couples were also more likely to enjoy and understand memorial meanings than families or groups. The researcher believes that this is due to the memorials' heavy symbolism, which stands up against its surrounding landscape.

As for JFKM and PDMF, where the symbolism was subtle and humble, the empirical data analysis results were strongly related to the notion of Jellicoe's 'subconscious' in landscape design and abstract art, where users' perception over time enriches their subconscious and collective memory. According to Jellicoe, in abstract paintings, the 'literary' or 'intellectual meanings' of the picture are subdued and replaced by instincts that predominate (Thompson, 1994).<sup>66</sup> For most of the JFKM visitors who did not know about the design prior to their visits, the place was purely a restorative natural landscape, perceived over a journey of climbing, pausing, walking and sitting, and whose elements were left up to people's interpretation, instincts and personal reflection over time.

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<sup>66</sup> Retrieved on 25<sup>th</sup> September 2015 from:  
<http://www.ncl.ac.uk/guru/assets/documents/ewp6.pdf>.

Table 8.1: Memorial predictors of success and preferences in relation to memorial typologies

Contemporary memorial typologies	Design predictors of success		Users' preference of design attributes
	Internal	External	
PDMF: Anti-Phallic/Playful	-Memorial Subject  -Enjoyment	-Reflection  -Strolling  -Social public space	-Bubbling and Cascading fountain  -Reflective pool  -Surrounding landscape
7JM: Phallic/Monumental	-Memorial Subject  -Readability  -Didacticism	- Thinking  -Contemplating  -Aesthetic value	Surrounding landscape
Allegorical/Natural	-Didacticism  -Catharsis  -Readability  -Place belonging	-Thinking  -Navigation  -Touching	Surrounding landscape



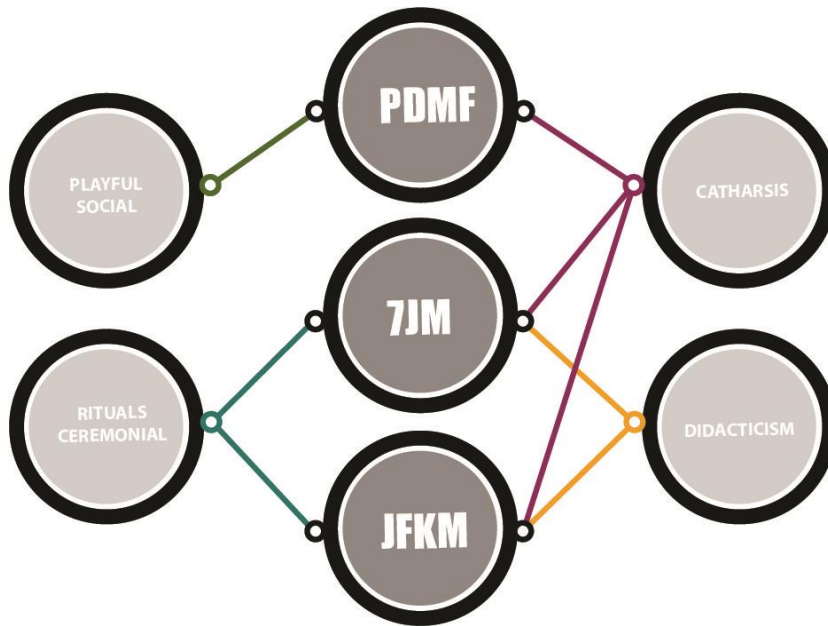


Figure 8.3: Memorial cathartic, didactic, playful and ceremonial classifications

Figure 7.4 represents the way the three case studies relate to Vickery's spheres of public policy of modern memorial making, based on these research findings. PDMF proved to deliver an active social public space and family amusement with cultural and tourist fame. 7JM has ritual value for local communities and has become part of the urban and architectural infrastructure of the park. JFKM is related to rituality, cultural tourism and heritage and historical and narrative identity. Figure 8.5 presents the three memorials' characteristics, based on anti-memorial aspects defined by the researcher and presented in Chapter Two.

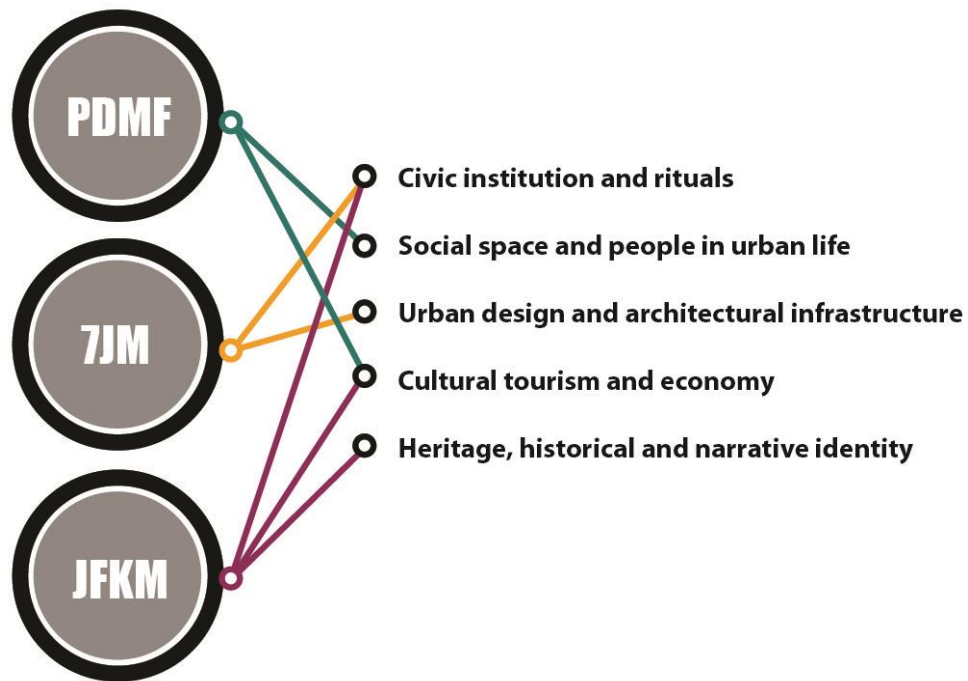


Figure 8.4: Memorials' categorisation in relation to spheres of public policy making by Vickery (2012) (see Chapter One)

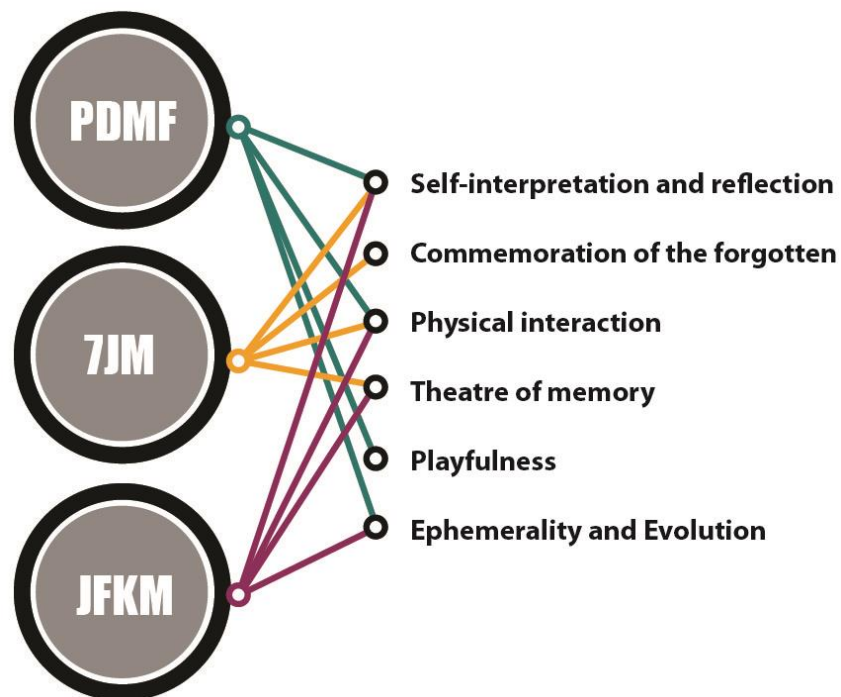


Figure 8.5: Memorials' categorisation in relation to anti-memorial characteristics

The behavioural observation of the three case studies identified three memorial fields of enquiry into which they could be categorised: public art, landscape and monument. The memorial fountain and the columns of PDMF and 7JM were perceived as elements of public art sitting in wider landscapes. The backdrop settings were appreciated most by the visitors and were more important than the memorial features per se. The memorial columns and the inscribed plaque had monumental and ceremonial presence, in addition to being art objects. In contrast, JFKM was carved within the landscape and both were perceived as one entity. They are inseparable, and both received the same level of appreciation from visitors. This memorial belongs to the three fields and performs as a designed landscape, a setting for abstract art through its introduction of distinctive shapes and inscribed stone and a monument through its memorial stone or the 'body' as described by Jellicoe (see Figure 7.6).

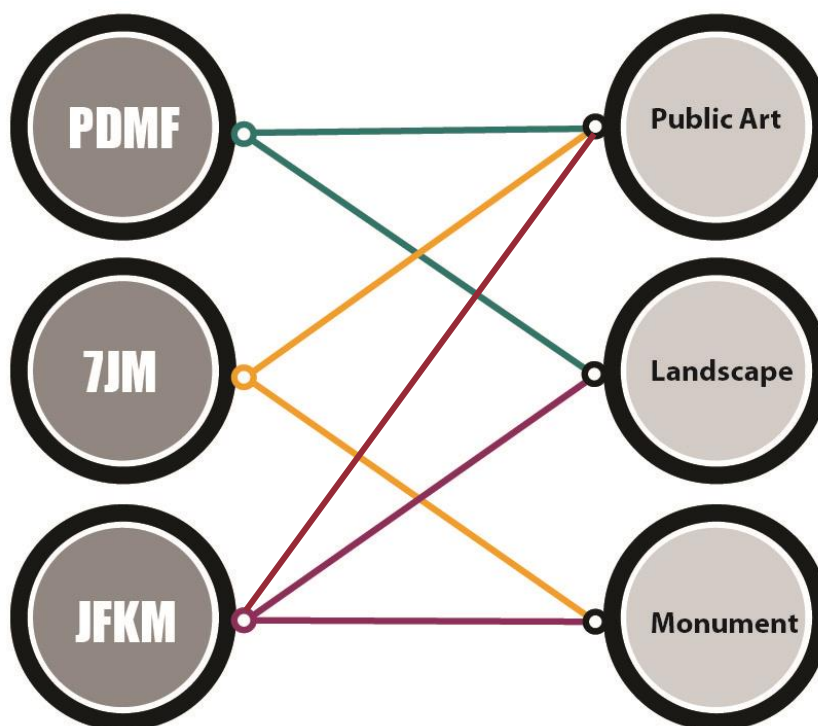


Figure 8.6: The three memorial fields of enquiry

#### 8.2.4. Research question three:

How could a forced displacement of Palestinians be best commemorated and symbolised through landscape design, based on the notions of contemporary

**memorial and transactionalism? And how were the memorial aspects and exhibition perceived by the public?**

*A memorial of a landscape*

The Al-Nakba memorial project represented an architectural and landscape architectural design that focused on subtracting spaces rather than adding forms. The transactional nature of the Palestinian refugee-landscape relationship, and their connection with their homeland, is not only temporally sentimental or nostalgic but continuously evolving through the living memories and social and cultural identity that they have maintained since the time of expulsion.

The design commemorated its event through metaphors and symbolism: the **organic formulation** of underground spaces, based on the **defragmentation** of the Palestinian map, was a depiction of this refugee-landscape relationship; the **sense of emptiness** above the ground echoed the distraction of land that has been awaiting reconstruction; the Alice Aycock inspired **dark underground spaces** symbolise the immense disaster of Nakba: expulsion, distraction, death and loss; the **six long routes**

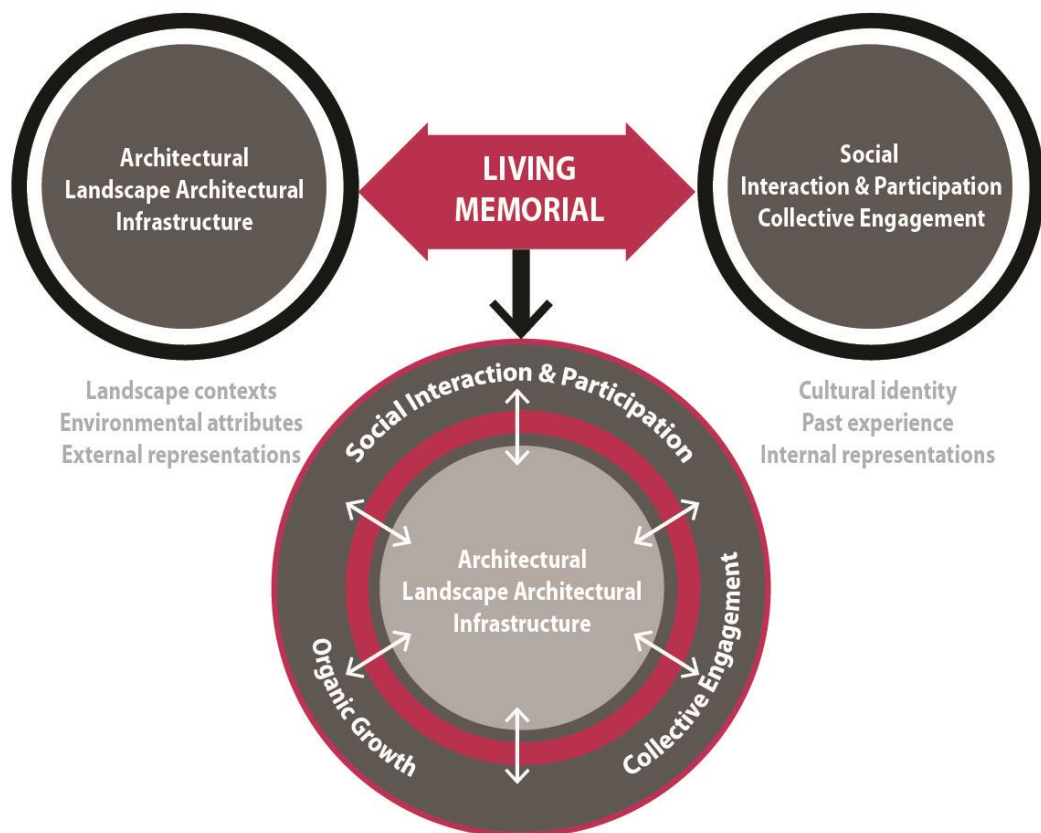


Figure 8.7: Memorial transactional long-term process

connecting the defragmented plates lead to a platform of hope, with the visual connection to Palestine denoting the right of return; the annual lifting of the monument of expulsion on 15<sup>th</sup> May at the start of each route echoes the scale of the distraction of the land before and after Nakba.

### *Ephemerality and transformation*

The vegetational and landscape development of farming, olive tree planting and harvesting, the Mediterranean pine woodland and the oak tree avenues characterise the Palestinian natural and cultural landscape. The memorial farm creates a social value by cultivating the land as a collective effort. Despite the robust architectural and landscape architectural infrastructure and the memorial design rigour, the site will be transformed and evolve over time through landscape change and the ephemeral social intervention of refugees and visitors. This is strongly linked to notions of anti-memorial relating to the time-based memorialisation process, and emphasises the ongoing Nakba catastrophe and collectively keeps memory alive for future generations.

One of the important aspects of anti-memorial, stressed by Sue-Anne Ware (2004), is the ability for growth, expansion, evolvment and disappearance. The time-based memorialisation of Nakba will be based around personalised and collective acts, modesty, refugees and local participation; it is a physical catalyst for social reformation and identity enhancement. This memorial is not only about the dead, but also about the living, future generations and the presence of absence.

### *Memory and transaction*

In opposition to the 'trait' psychological view, where physical and social phenomena are governed only by internal essences and self-power, transaction, as described by Alltmand and Dewey (1987), includes the context, processes and temporal qualities of the phenomena as aspects of integrated unity. Architectural and landscape architectural infrastructure will act as a skeleton to build up a new interactive system through social participation (see Figure 8.7).

### *Growing memorial*

The Palestinian issue has been one of the most important subjects in the international political system since the end of the Second World War, and the focus of Middle East

politics since the beginning of the twentieth century. The necessity of its resolution has been continuously negotiated and debated worldwide. It is a living issue, fluctuating in relation to political views and national and military powers. Creating a living and growing memorial is the best way to represent the changing nature of Palestinian crises.

The landscape ecology of the memorial site focuses on spatial heterogeneity and patterns, and the interrelations between users' intervention and the project living environment. This ecosystem is characterised by a changing process over space and time to foster the dynamics of landscape. This embodies the changing nature of Palestinian Nakba and its social and geo-political dynamism.

#### *The genius loci*

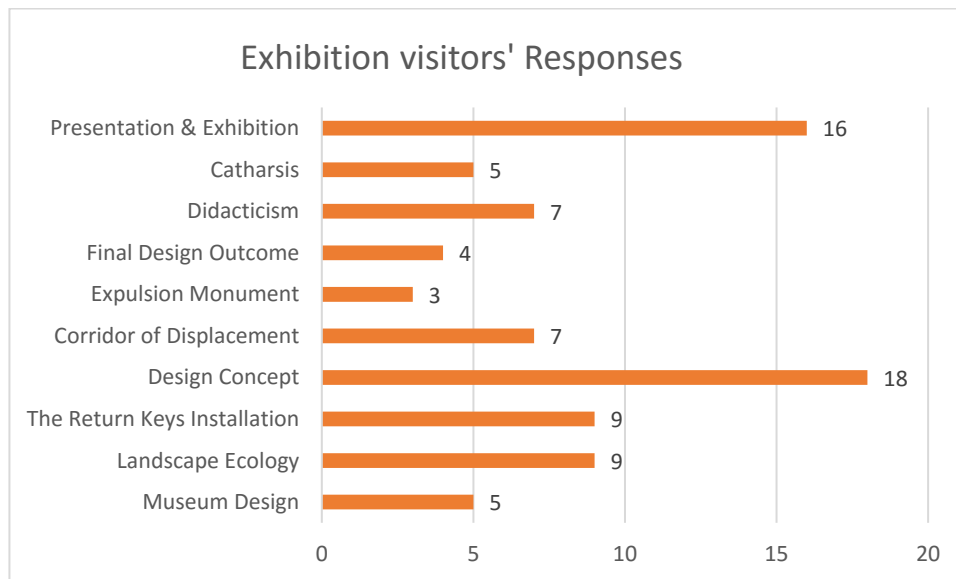
The project site, located at the boundary with occupied Golan Heights, has mnemonic powers for resurrecting past memories and facilitating memorialisation processes. Casey (1987) stated, 'We must come to heed the proper place of the remembered - its manner not just of occupying space but of incorporating it into its own content. Situating by its very nature, place adequately heeded will help us situate memory more fully than has been possible thus far'. The hidden pulling forces of the frontier with occupied land enhance the uncertainty and instability of the memorial growing system.

#### *Exhibition visitors' responses analysis*

This mixed method study has used design exhibition as a means of research. One of the main outcomes of the project exhibition was the visitors' response to the memorial design and the way it was represented. As described in Chapter Six & Seven, public exhibition of the memorial design supported the aim of this part of the research to link theory with practice and feed into the professional world.

The design outcome and other memorial personal projects dimensions (appropriateness, didacticism and catharsis) scored 4.71, 4.74, 4.39 and 4.24 respectively. The importance of the memorial subject scored 3.2. This shows that despite the lack of interest, familiarity and knowledge of some visitors about Palestinian Nakba and the 1948 expulsion crises, they still appreciated and valued the

memorial design in terms of its didactic and healing quality and its suitability for such an event.



Graph 8.4: Memorial exhibition visitors' responses

Two of the most appreciated aspects of the exhibition were the **design conceptual approach**, which was mentioned 18 times, and the quality of **presentation and curatorship**, with 16 complimentary comments. Exhibition visitors embraced design through many positive statements, and mentioned the aspects they liked the most:

*'Well executed/every detail has rationale' (EV03).*

*'The concept is unique' (EV06).*

*'Conceptual development' (EV16).*

The return **keys installation** and the project **landscape ecology** were the second most liked aspects of the project (nine times each):

*'Incorporation of plants and animals' (EV21).*

*'Perforation of hillside with different layers, light, water' (EV28).*

*'The rhythmical tree corridors' (EV32).*

*'The symbolism of the keys in the model' (EV08).*

*'Really like the use of keys as a symbol of forced Palestinian leave' (EV22).*

Then came the idea of the **corridors of displacement and expulsion monument** and the **design didactic/informative value** (7 times each) (see Graph 7.4):

*'Tunnels and viewing platforms of the end' (EV09).*

*'Tunnels facing Palestine' (EV13).*

*'The symbolism of the corridor of suffering, the light of hope, etc.' (EV38).*

*'The fact that middle eastern war/chaos is focused on' (EV02).*

The exhibition's visitors proposed many ideas for design and exhibition improvements. Some of them mentioned a way to make the memorial place more social by introducing more functional spaces for gathering and facilities:

*'More defined space for community to socialize, maybe' (EV04).*

*'Accessibility and other facilities' (EV09).*

*'Clearer exploration of exhibition space - how is it going to be legible to Palestinians and others?' (EV28).*

Others proposed more ways to improve presentation clarity and publicity:

*'Bigger scale of posters/light' (EV06).*

*'You could have used the windows' (EV06).*

*'Make bigger wording for easy to read' (EV19).*

### **8.3. Design reflective evaluation based on the results of the comparative analysis of the three case studies.**

As part of the reflective practice theory of this research by design, and based on the results of the main research data analysis of questionnaires and behavioural observation, the researcher has re-evaluated the Palestinian memorial design so it can perform more successfully and serve its purposes as a living memorial for Palestinians and their displacement crises (see Figure 8.8).

Some design aspects that could be reflected upon are:

- The aim of the design concept of excavating the museum under the ground is creating an organic architecture-landscape amalgam and concealed and non-distracting architectural presence above ground. The symbolism of the Palestinian map in the forms of museum space formulation is too literal. Having natural growing organic voids with flexibility to subtract the ground



based on refugees and visitors' vision and needs would be a better way of enriching the person-environment transaction and ephemerality of the memorialisation process. The ideal result will be a fragmented interconnected series of chambers, growing over time, exposed to the sky with a variation of experience of lighting and sonic qualities. Those could have flexible and changing programs, shape and size.

- More attention should be paid to different mechanisms to facilitate the social dimension of the memorial. Agriculture farms above ground should be complemented with other facilities and programmed spaces.

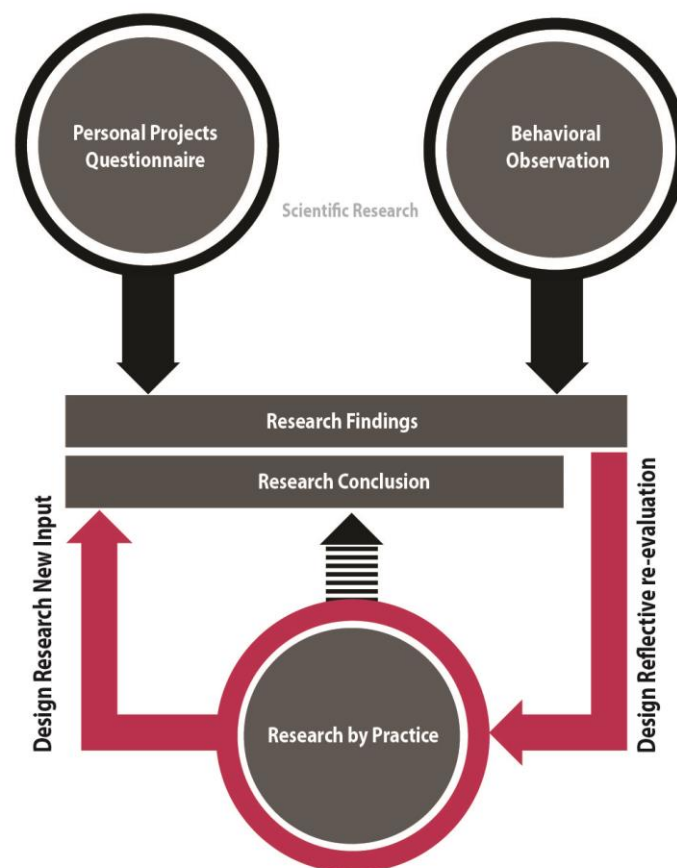


Figure 8.8: Reflective practice based on main research results

- The current design was architecturally driven, and instead a stronger connection between external and internal spaces should be created: landscape could inhabit architecture. This would match the initial design intention to perceive memorial as a landscape, an idea well presented by Jellicoe's design of JFKM at Runnymede, which was highly appreciated by users. The Nakba memorial is not intended to be a place for mourning, but a theatre to celebrate Palestinian culture, resistance

against occupation and hope for future return. Hence, it should not only perform as a memorial, but as a celebratory public place for gatherings and a catalyst for social and cultural demonstration.

- Designing this memorial should take into consideration gender differences. Women and children are the main memorial participants and visitors. Playgrounds and performing areas could be introduced to satisfy those users.
- The possibility of improving the didactic quality of memorial through embossing text and images into some memorial elements: standing stone, path paving, with a subtle inscription, so that elements and text appear inseparable.

#### **8.4. Discussion of design recommendations**

As the literature suggests, memorial design is very complex, and there have been huge controversy and criticism relating to contemporary designs with their abstractness and empty quality. However, this research has suggested key aspects that landscape architects, architects and designers could take into account when designing memorials. This section does not propose design formulae or solutions, but evidence-based guidelines for inspiration.

Even though the research findings were site-specific, generic design recommendations can be applicable to all contemporary memorials from the same categories as the case studies. Suggested key aspects can be concluded as follows:

- I. Emphasising the social agenda of memorial design by creating an interactive public space rather than just a memorial. This allows memorial to be more appreciated by and accessible to people of different genders, ages and backgrounds. In this respect, Kathryne Mitchell asserts that memory is acquired through social interaction and is thus subject to 'social construction'.
- II. Successful memorial is dedicated to great causes. The memorial's commemorated subject plays a significant role in creating a powerful place. Designers should stress its importance in publicity and throughout the design stages.
- III. Variations of gender, age groups and nationalities should be taken into consideration throughout the design process. The memorial subject can indicate certain groups or audiences for whom it will matter. Family-oriented memorials with playful qualities facilitate social interaction and high-quality communal engagement. With regards to gender, the literature has shown that women often

consider emotional events to be more emotionally stimulating than men do. These research results have shown that women outperform men in attachment to memorial events due to the way they process emotions.

- IV. Urban, landscape architectural and architectural infrastructure act as a datum or spine, awaiting further evolvement. Memorial should have a rigorous and robust processional framework.
- V. Minimal design aesthetic value, through which memorial symbolism is provoked, is highly appreciated by memorial users.
- VI. One of the key reasons for JFKM's powerfulness is its natural landscape setting. The surrounding landscape is as important as the memorial itself, and it is a key player in creating a place that blends with its context. Landscape enriches memorial with grieving and cathartic value.
- VII. In opposition to Joel McKim's statement that the success of a memorial design lies in its focus on either soothing or education, without trying to perform multiple duties simultaneously, didactic and cathartic values should both be stressed in the design process. Text that is integrated within memorial elements is better perceived and valued by people than separated plaques or boards.
- VIII. Integration of interactive elements that stimulate all senses and affordances of touching, sound, splashing, playing, reading, smelling etc. is an important factor in creating an interactive and personal reflective memorial.

In addition to these issues, re-evaluating the design project presented in the previous section highlighted some other design recommendations for the context of displacement and war memorial.

### **8.5. Research limitations**

The research outcomes were limited, and many aspects in its methodology could be improved if time and fund allowed. The limitations can be summarised as follows:

- The site studies were carried out during summer 2010 for the best outdoor conditions; it was impossible to carry out lengthy observations due to limited time and funds. If time permitted and funds were available, it would be more effective to carry out data collection over six months, which would allow for a greater degree of observable change.

- This study observed three groups of distinctive users, namely adult males (M), adult females (F), and children (CH).<sup>67</sup> Because of the overcrowded site of Princess Diana Memorial Fountain during behavioural observation, it was impossible to identify more specific user groups. More detailed sessions of observation with more specific user groups and lengths of memorial visits would allow for more fruitful research results.
- This research explored users' perception of and interaction with memorial based on three case study sites in London. It would be interesting to conduct a cross-cultural study, and attain more insights into the way cultural, social and geo-political background can affect how memorial is perceived and evaluated by the public.

## 8.6. Final conclusion

Memorial design is one of the most difficult tasks designers face, due to its complexity, subjectivity and multi-faceted considerations. The arrival of the twentieth century and the First World War witnessed a change in the way memorial design was perceived and how meanings were manifested. In earlier times, classical memorials were designed to celebrate the victories and triumphs of a dominant regime, as part of an identical nation-building process. As such, they represented the national history and past in a way that maintained specific ideological and political views, delivered to the public in a wide range of figurative memorial forms. The Second World War raised a question of the appropriateness of traditional memorial forms for commemorating war victims. As a result, new memorial design approaches have emerged. They are based on ephemerality rather than permanence, flexibility rather than rigidity. The changing nature of memory and political and environmental landscapes implies new design discourse.

Minimalism and highly designed forms became significant to modern memorial design; the presence of "invisibility" and "anti-phallic" were also important, as Sergius Michalski (Michalski, 1998) and Marita Sturken (1998)

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<sup>67</sup> This coding can be seen in the observation maps in Appendix D.

have described. However, this contemporary approach has been criticised by many scholars, such as Kieran Long (2007) and J. Williams Thomson (2008), as being meaningless and incapable of inspiring profound feeling

This research has offered a detailed picture of how the typical design elements of contemporary memorial have been perceived by people from different gender and age groups by presenting the findings based on the views of memorial users about attachment, catharsis, readability and preference, and settings' affordances through behavioural observation and mapping. The study suggested that there is significant difference between the three case studies, PDMF, 7JM and JFKM, in terms of nationalities and gender. This thesis emerged from the necessity of developing an evidence-based approach to designing memorials, and outlining key issues in their design inquiry.

The research goals have been achieved by adopting two approaches:

- 1- As presented in the literature review in Chapters Two and Three, this study began with a *deductive* approach, introducing the context of memorial design in the twentieth century and its movements and approaches, with a focus on the principles of the counter-monument and anti-memorial design movements.
- 2- Second was the *inductive* or *empirical* approach. This involved acquiring knowledge, collecting qualitative and quantitative information and gaining more insight into people's attitudes and perception of memorial landscape design by means of the visitors' questionnaire and behavioural observation, in addition to the Palestinian Nakba memorial research by design project and its exhibition visitors' feedback.

The findings of this study's qualitative and quantitative data analysis can be summarised as follows:

- 1- At Princess Diana Memorial Fountain, a playful and family-oriented

memorial, the satisfaction of memorial visitors depends on reflection and the affordances of strolling and social activities. Design elements that encouraged navigating space, freedom of movement, observation, contemplating and reflecting on the memorial event, for example paths and grassy areas, played a key role in the memorial's performance of its duty.

- 2- At such memorials, where the majority of users are women and children, memorial elements should be designed to encourage family interaction and engagement. This design was not intended to teach about the commemorated event, but to soothe and encourage thought over time.
- 3- Contemporary memorial, with its neutral and abstract forms as a fundamental design approach and its sense of timelessness, acts as a theatre for people of different ages and cultural groups to refashion the place through social interaction and engagement.
- 4- The subject of any memorial plays a significant role in engaging people and in being celebrated as part of the rituals of certain society. The importance of the memorial event for people correlates highly to the success of the memorial.
- 5- For ceremonial and ritual memorials, such as the 7<sup>th</sup> July Memorial, users' satisfaction is not only dependent on how memorial makes people think and reflect, but also on the degree of design clarity and readability. The data analysis showed that the success of the memorial experience strongly correlated to the readability of its symbolism and meanings.
- 6- At memorial places, surrounding landscape is as important as the memorial itself. Memorials' visitors preferred the surrounding landscape that connects the memorial with its setting. These allow visitors to observe and appreciate the memorial from afar, and perceive it as part of the whole landscape.
- 7- Data analysis showed a variation of nationality and significant

difference between participants in terms of memorial importance.

Stokols and Shumaker (1982) illustrated a “holistic taxonomy of places” that link their geographical and physical properties with actors, psychological processes and social and cultural meanings.

- 8- The research into John F. Kennedy Memorial, which combines poetry, narratives and philosophy, presented it as a place for both rituals and touristic destination, and showed that the key aspects of memorial success were related to both its cathartic and didactic quality. The secret behind visitors’ appreciation of this memorial was the multitasking it performed simultaneously on cathartic, didactic, place belonging and readability levels. This opposes Badiou’s idea about memorial functions. He believes that memorials must either serve a didactic or cathartic function; they must either instruct or initiate a healing process. He thinks that some contemporary memorials, such as Ground Zero, attempt to perform both of these functions (McKim, 2008).
- 9- One of the key factors of this type of memorial’s success is its natural setting and the sense of calmness and tranquillity it provokes. It is more about landscape experience than mere memorial elements.
- 10- Another secret of the success of a memorial relates to its history and information, unfolding through the journey the visitors take that encourages them to linger and contemplate the historical scene.
- 11- Female visitors are more likely to be attached and value the importance of a memorial than men. It is also more readable and cathartic for them. The researcher has linked this to the self-expression and emotional engagement that women had with a memorial place. It has been proved that women rate emotional images as more emotionally stimulating than men do, and are more likely to remember them

In general, the findings contribute to research in the field of landscape architecture by:

- Extending the body of knowledge of memorial landscape design and its relationship with its social and cultural context.
- Revealing the differences in experience between different approaches of memorial design and the ways they are perceived by memorial visitors.
- Research in this area reinforced the multidisciplinary aspects of landscape architecture design through contributing to social, memory and public art studies.
- Reinforcing the importance of the didactic quality of contemporary memorial place to enhance the readability of memorial narratives.
- Emphasising the cathartic role contemporary memorial design plays in trauma healing through a sombre representation of the memorial subject.
- Reinforcing the importance of both the cathartic and didactic qualities of memorial design. The fact that memorial serves both functions is what makes it appreciated by the users.
- Demonstrating that memorial subject is an important predictor for memorial success.
- Recognising texts embedded in memorial elements as a contributor to design communication.
- Emphasising the importance of presenting memorial environment as an open public space with multiple activities and not with single use.
- Showing that the surrounding landscape is as important as the memorial features.
- Reinforcing the idea that some types of memorial require longer visiting time or multiple visits in order to be understood and appreciated due to their hidden or complex meanings.



- Emphasising the importance of interactive affordances such as touching, wondering and playing in enhancing the transactional person-environment relationship at places of memory.

### **8.7. Future research**

The researcher does not claim that this study answers all questions relating to the debate and argument around contemporary memorial design, or provides formulae for designing powerful memorial. He has only taken a step towards outlining the gap in literature that has shown a lack of empirical studies and evidence-based research in the memorial context, and defined some design problems as triggers for further investigations.

As part of actual site studies, the researcher conducted interviews and questionnaires with the managers of the three case study sites: Greg McLean, manager of Princess Diana Memorial Fountain, Edward Strickland, manager of 7 July Memorial, and Annie Thomas, manager of John F. Kennedy Memorial, during the period of behavioural observation in 2010. Due to lack of funds and limited time, the results of these interviews and questionnaires were not included in this study. These can be subjects for further analysis in order to examine the difference between site management plans and actual site usage.

In the initial study and site work plan, the researcher suggested a method of investigation of memorial success through comparing designers' intention with users' perception. The investigation may involve interviewing memorial designer, as one of the stakeholders of the memorial project, in order to get more insights about design conception, the memorialisation process and also public involvement. This method is critical to assist researchers and designers to fully understand how the meanings of memorials are communicated with site users, and how a design inclusive of prospective users can result in significantly better users' perceptions of a memorial.

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# Appendices:

## **Appendix A: Design project: Palestinian Nakba Memorial**

A1. Exhibition videos:

See Exhibition videos folder in the CD.

A2. Exhibition photos:

See Exhibition photos folder in the CD.

1 | 2

Omar Mohammad  
PhD design-based research

Al-Nakba Memorial:  
Architectonic of displacement

The Site:  
Jamla Village, Syria

O.M. 2013 ©



## Al-Nakba Memorial: Architectonic of Displacement

**N**akba (meaning catastrophe in English) Memorial and Museum project is practice-based research, conducted as part of larger PhD research in Landscape Architecture at The University of Edinburgh. The main thesis examines user's perception and the psychological 'transactional' relationship with contemporary anti-memorial landscape, together with its abstract interpretive design.

3 | 4

In 1948 more than 700,000 Palestinians fled or were forcibly expelled from their homes, and more than 500 villages were destroyed. The proposed Al-Nakba Memorial project is dedicated to the memories of Palestinians' displacement from their homeland, and works as an evolving environments for personal profile and Nakba oral history with photography, maps and documents archives. It would act as an interactive working theatre for interpretation, actions and reflection by refugees and other memorial visitors. The proposed project site is located at the border between Syria and Occupied Golan Heights, which was chosen for its geographic and visual connection with the Palestinian homeland.

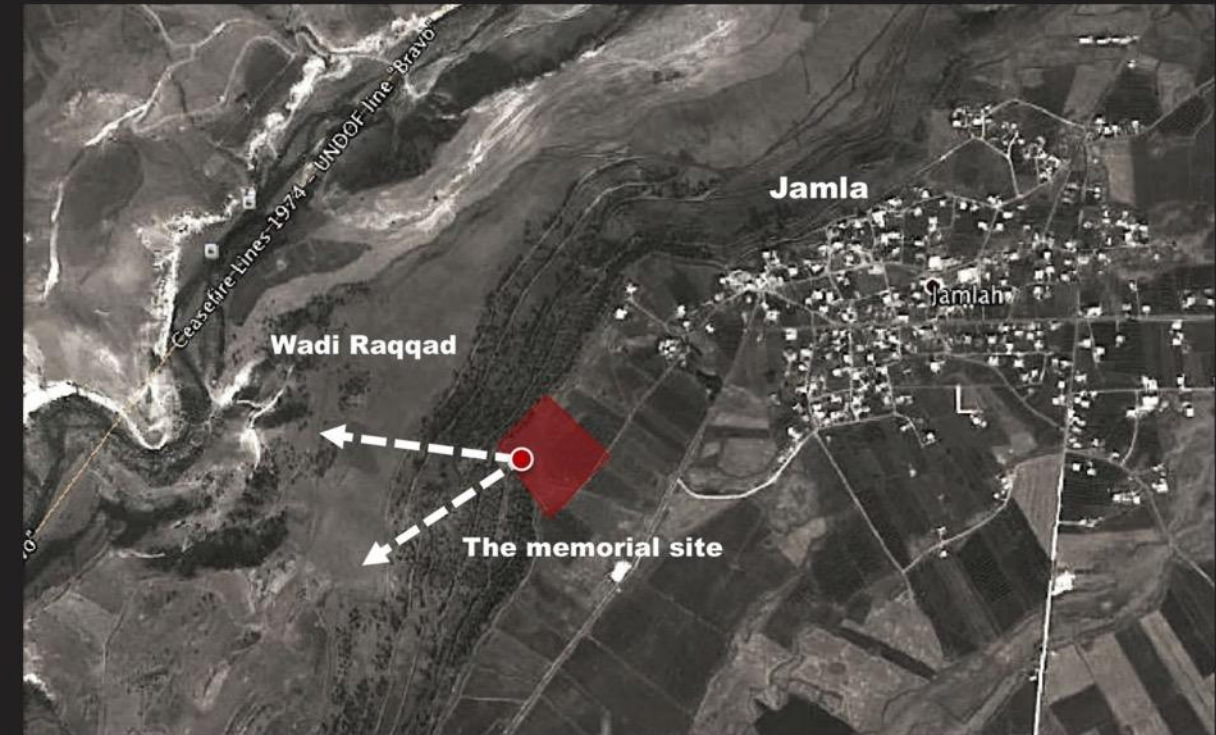
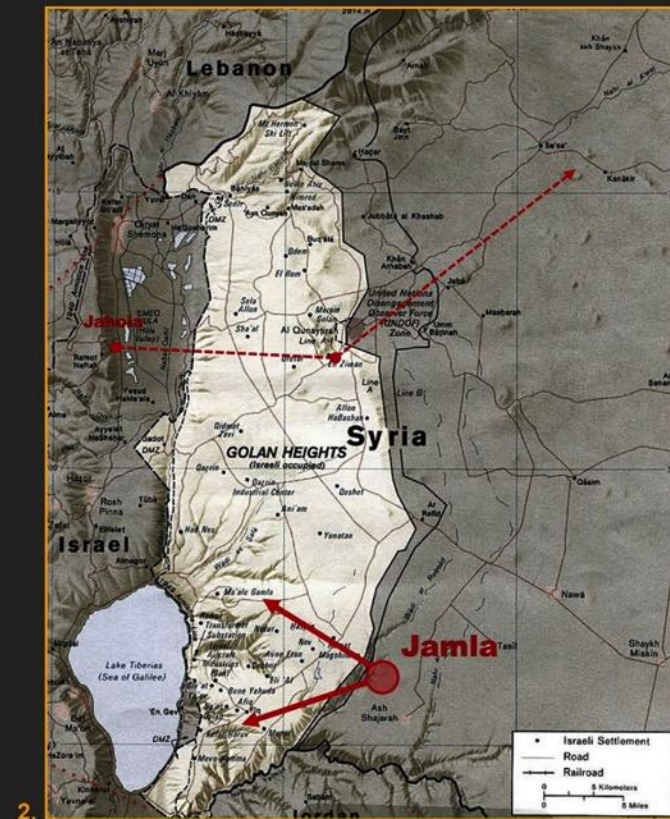
O.M. 2013 ©



1. Palestine sits at the edge between East and West.







1. Memorial site location in the Levant region
2. Memorial site location in the outskirts of Jamla village and at the border with occupied Golan Heights
3. The memorial site overlooking Palestinian landscape and Wadi Raqqad



1.

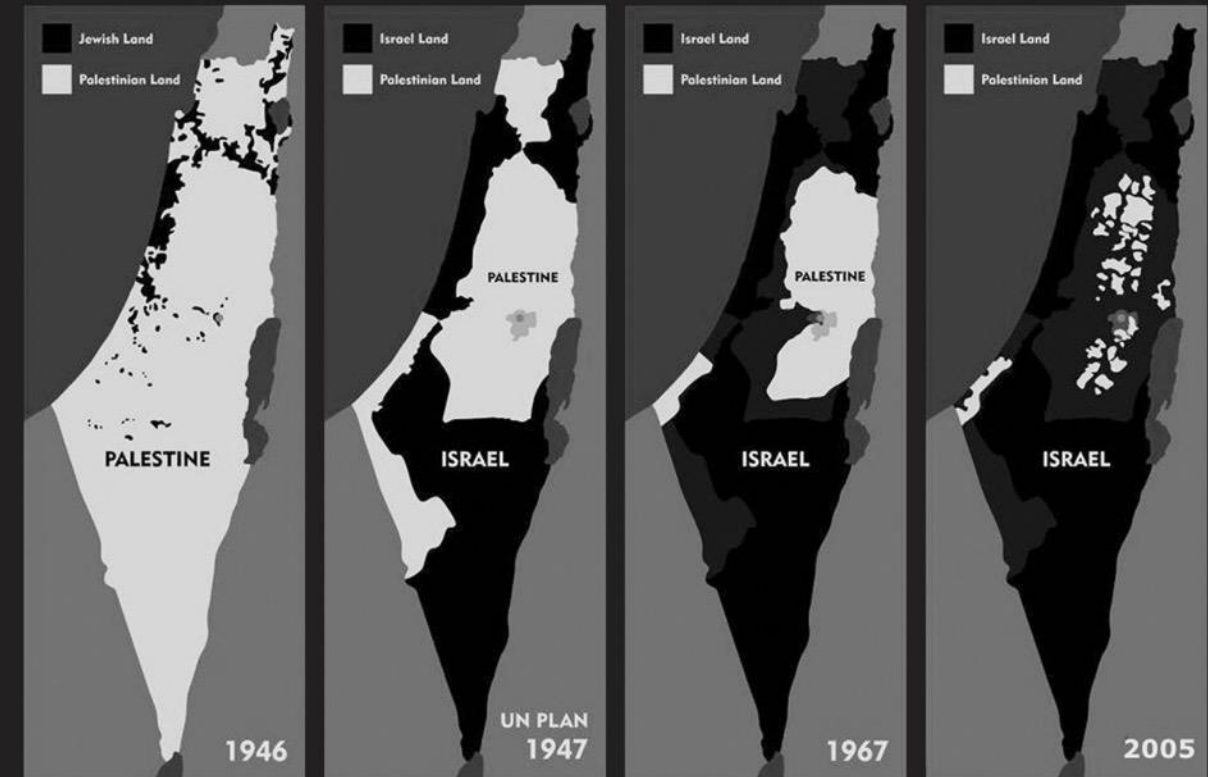


2.



3.

## PALESTINIAN LOSS OF LAND 1946-2005



4.

1. 2. 3. Hundreds of thousands of palestinian were forced to flee or displaced from their homes, cities and villages.  
4. Palestinian land loss between 1946-2005

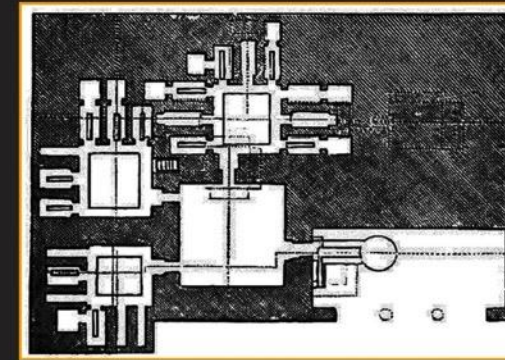


The conceptual design framework is inspired by the Palestinian natural and cultural landscape, and the transactional and emotional relationship between Palestinians and their lands. Lands as places of living, refuge and harvesting. This relationship with land was expressed in the design through the fragmentation, transformation and formulation of Palestinian geography into new-flux spatial configuration.

9 | 10 In this memorial project, the underground museum features spaces which emulate Alice Aycock's world of darkness, bringing forth visitor's past, present and future experiences while exploring the darkened rooms and tunnels. The Monument of Expulsion symbolises the determination of the Palestinian's to stand up and return to the place of their ancestral birth place - Palestine. It consists of a piece of land, which is raised during the anniversary of Al-Nakba every year together with a visual and sonic experience. This body-land amalgam has been reflected upon in Palestinian literature and famous poetic works, such as Mahmoud Darwish, and writings became one form of resistance against occupation.



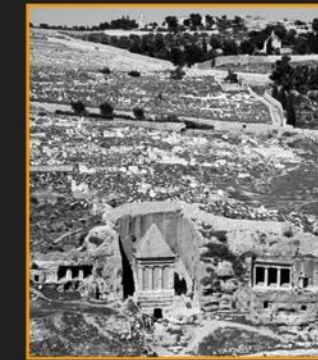
1.



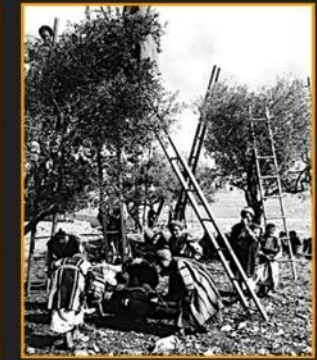
2.



3.



4.



5.

**Design inspirations:**

1. The dark underground tunnels by artist Alice Aycock
2. Tombs of kings: A rock-cut graveyard, Jerusalem (100 AD)
3. Hebron landscape: a series of hills looking over the city.
4. Tombs of the son of Hezir and Zakaryah (200 BD)
5. Olive harvest in Palestine



Al-Nakba  
Memorial

## Poem of the Land

"I am the earth  
 O, those who are departing to  
 the grain of wheat in its  
 cradle  
 plow my body  
 O, those who are departing to  
 the mountain of fire  
 pass on my body  
 O, those who are departing to  
 the Rock of Jerusalem  
 pass on my body  
 O, those who are crossing  
 on my body  
 You shall not pass  
 I am the earth in a body  
 You shall not pass  
 I am the earth in its awaken-  
 ing

You shall not pass  
 You shall not pass  
 You shall not pass!"

Mahmoud Darwish.

O.M. 2013©

## قصيدة الأرض

أنا الأرض  
 يا أيها الذاهبون إلى حبة  
 القمح في مهدها  
 احرثوا جسدي!  
 أيها الذاهبون إلى جبل النار  
 مروا على جسدي  
 أيها الذاهبون إلى صخرة  
 القدس  
 مروا على جسدي  
 أيها العابرون على جسدي  
 لن تمرّوا  
 أنا الأرض في جسدي  
 لن تمرّوا  
 أنا الأرض في صحوها  
 لن تمرّوا  
 لن تمرّوا  
 لن تمرّوا

محمود درويش



Mahmoud Darwish, one of the most  
 influential Palestinian poets.  
 Transactional nature of Palestinian  
 refugees and their home land, expressed  
 in his poem, act as an inspiration for this  
 p r o j e c t .

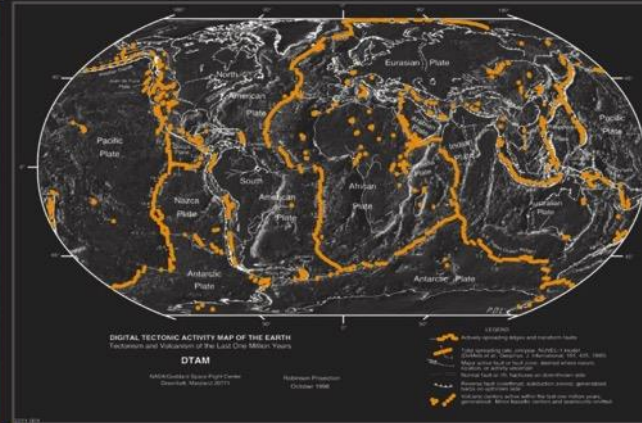
Al-Nakba  
 Memorial



13 | 14



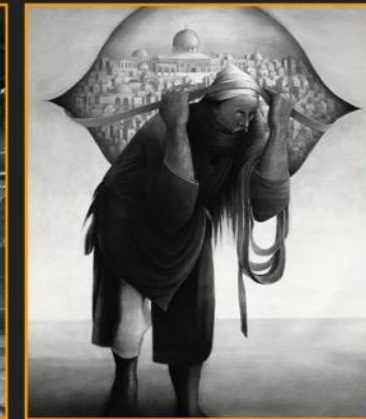
1.



2.



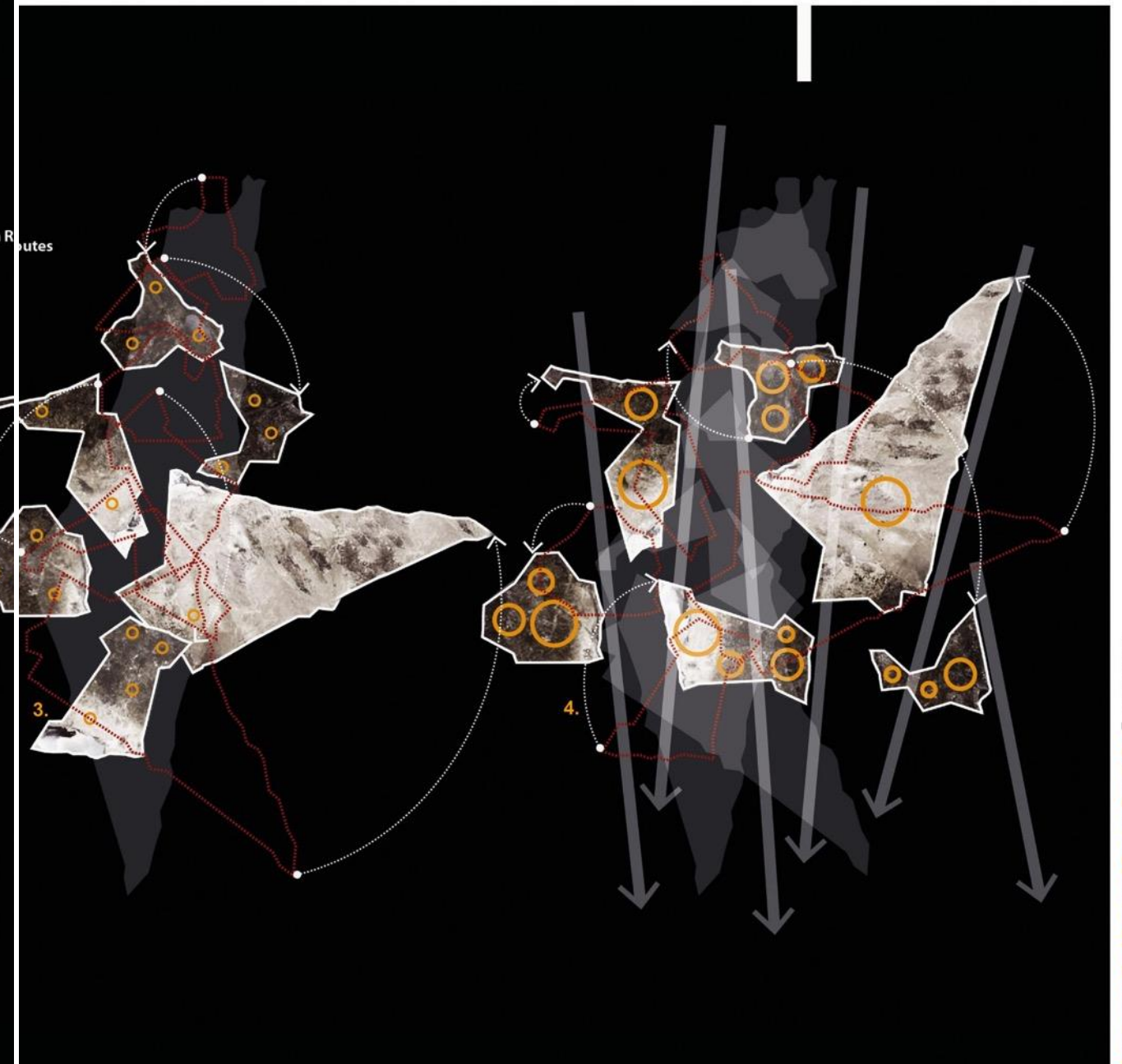
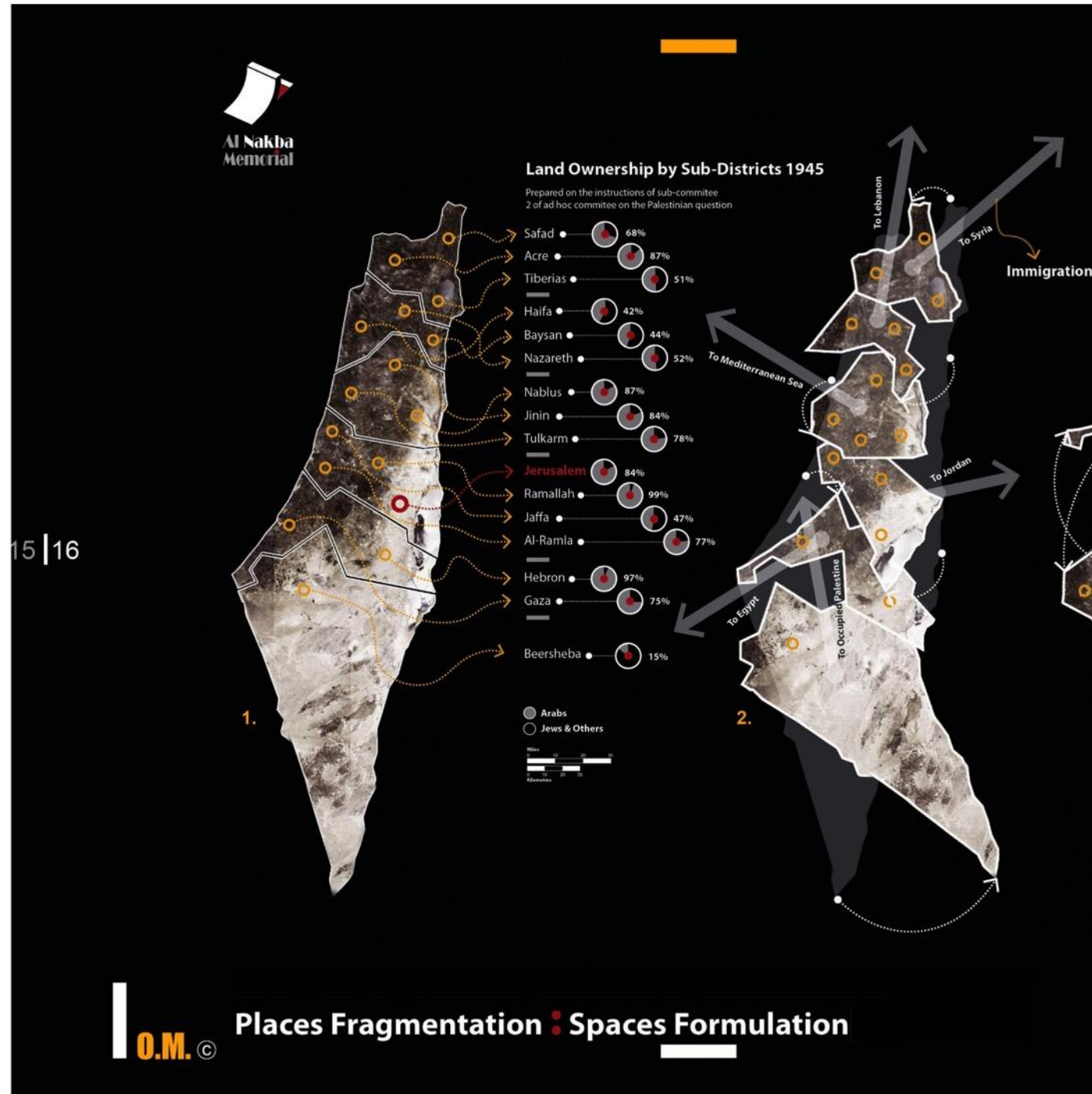
3.



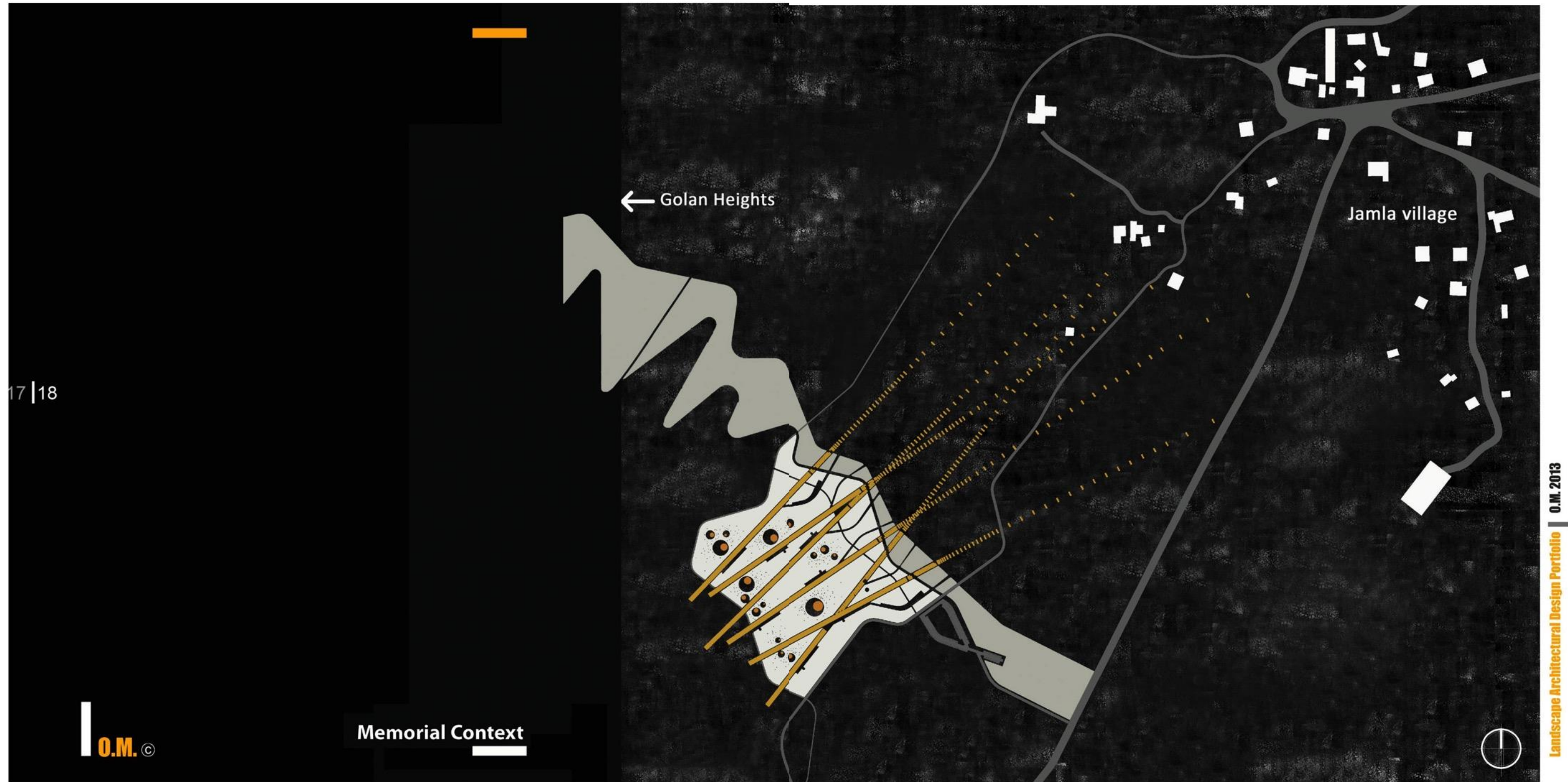
4.

### Architectonic of displacement

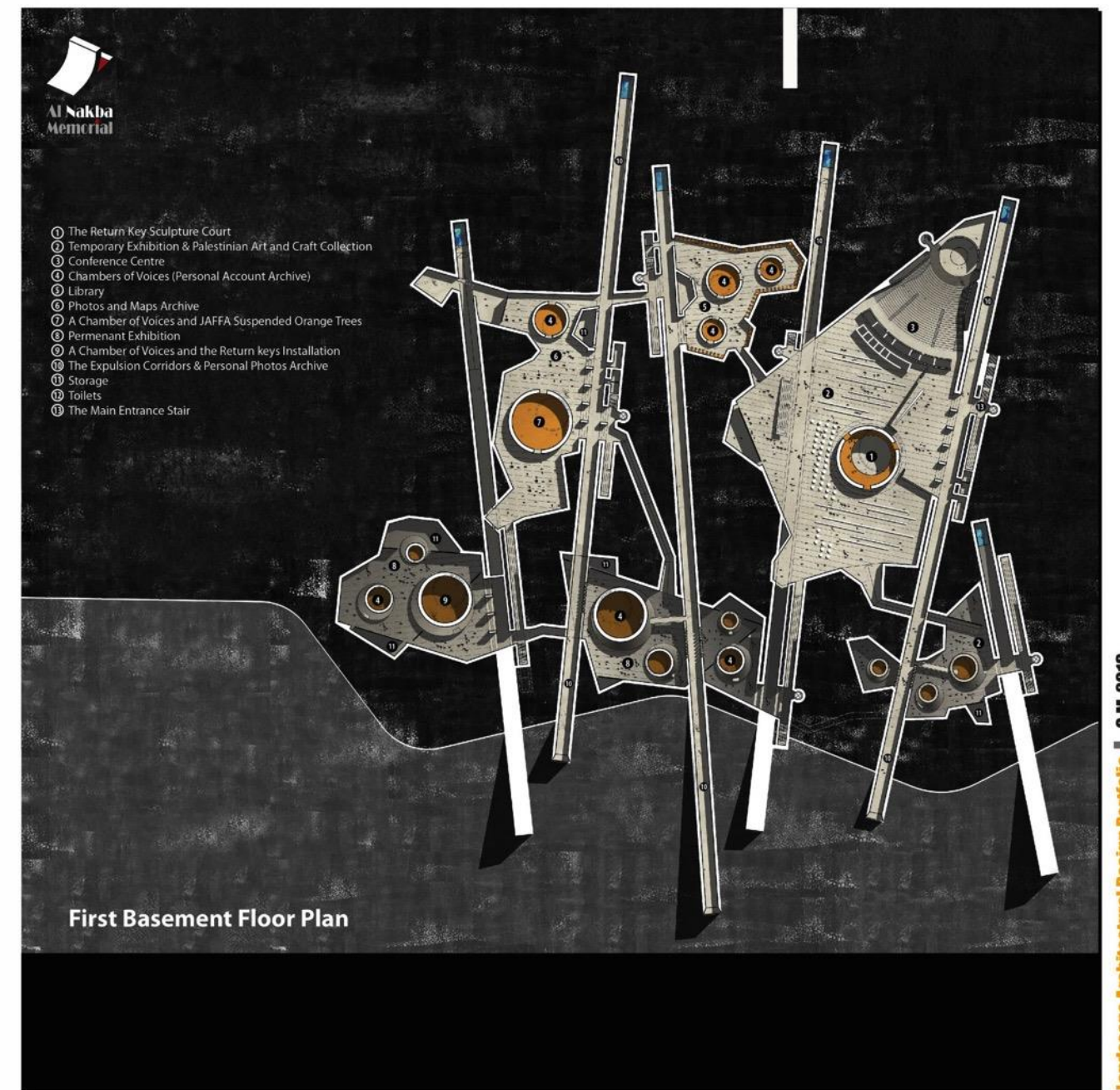
1. Earthquake crack
2. The world tectonic plates
3. Inception: a cinematic vision of dream Architecture ... out of space and time!
4. The Bearer of Burdens: by Palestinian artist Suleiman Mansour



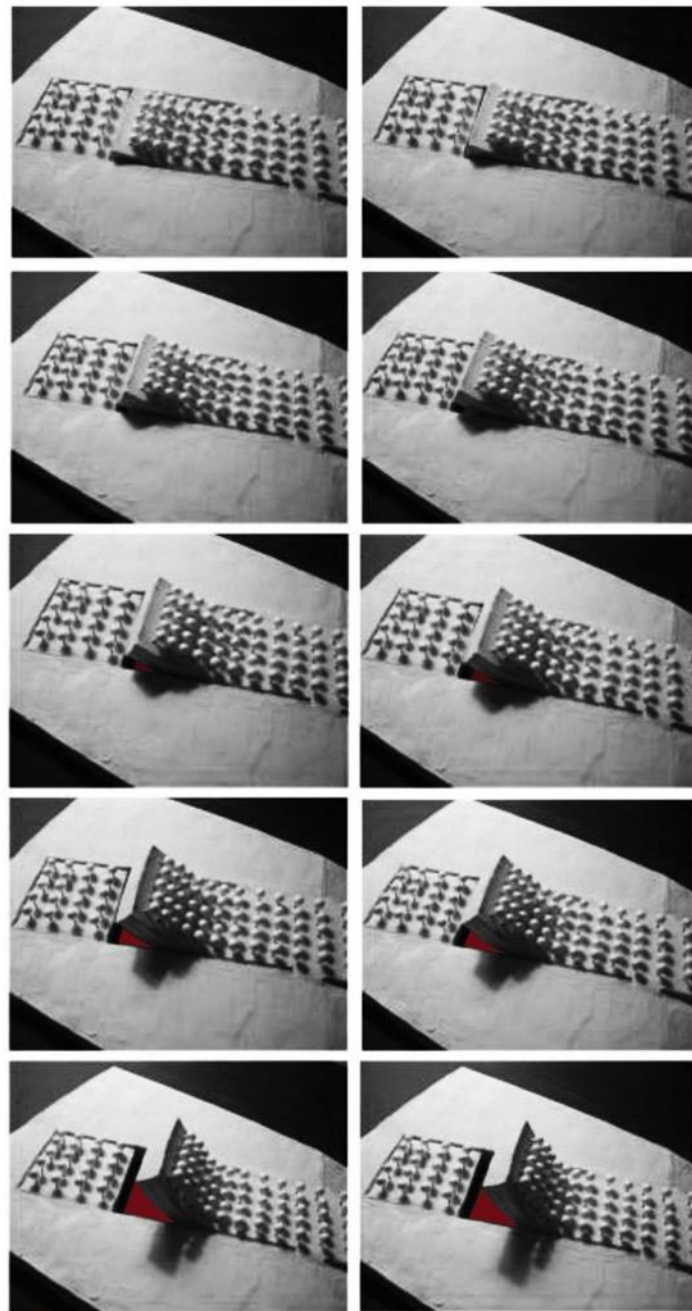




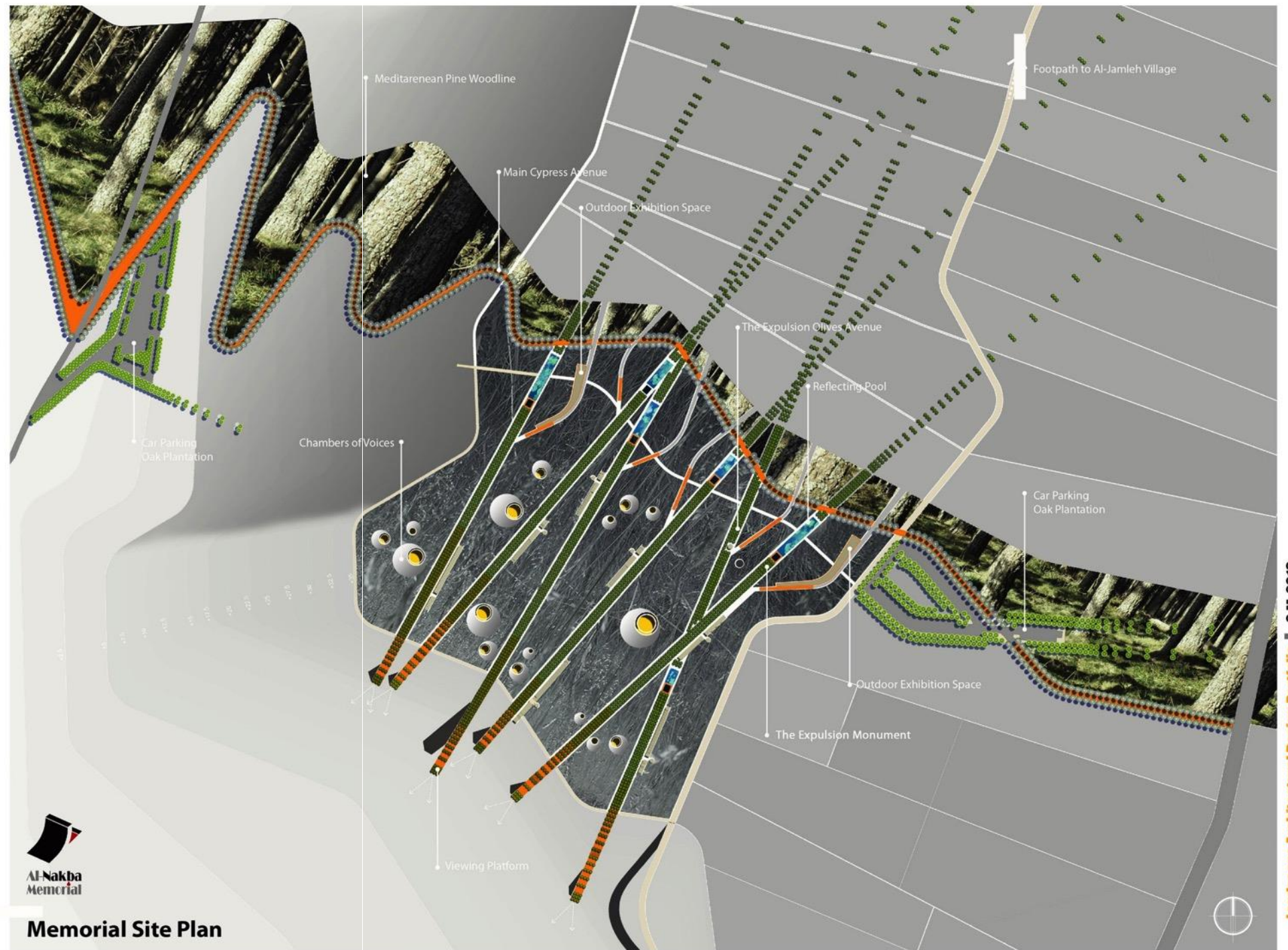




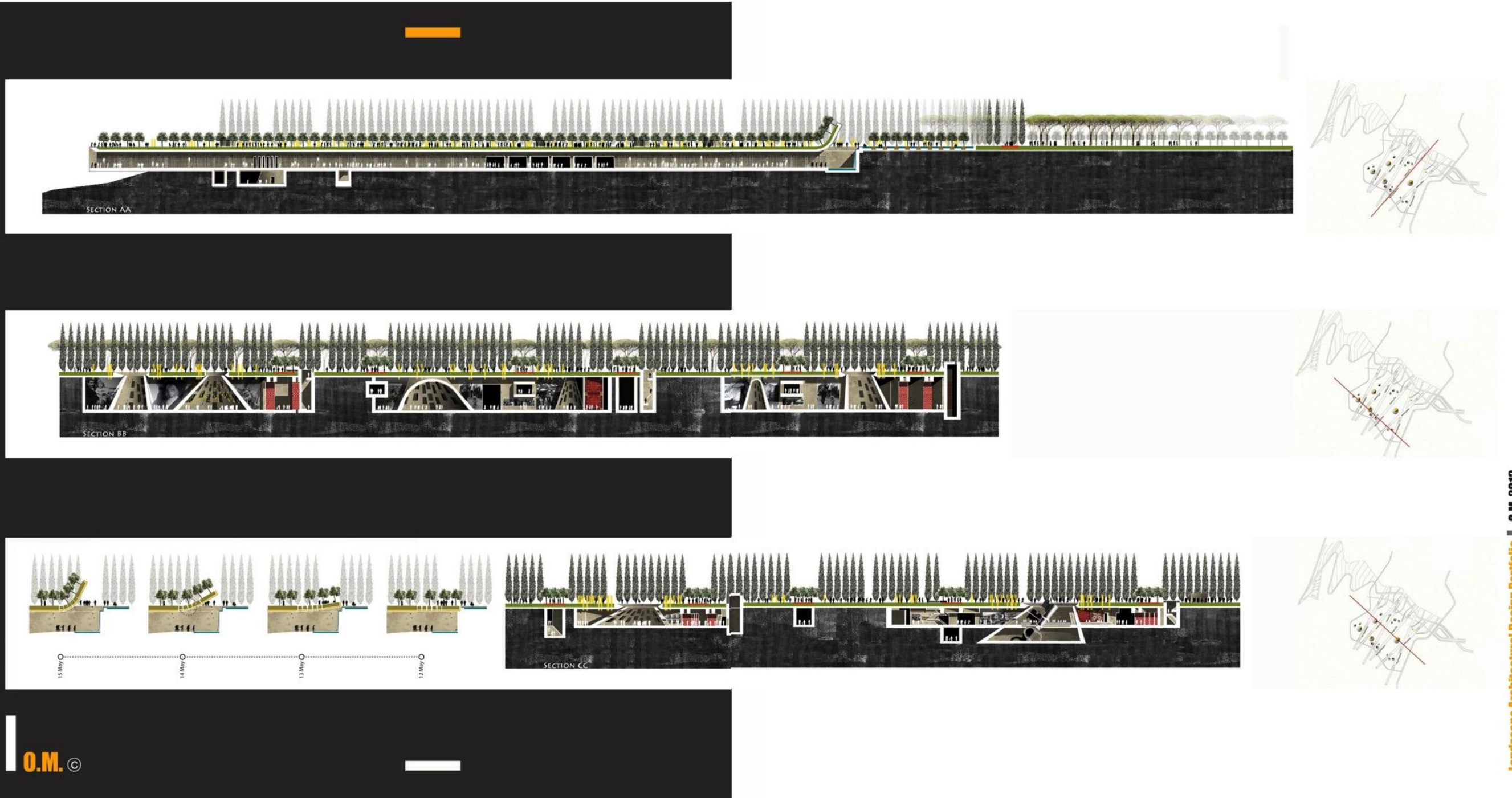




O.M.











## Al Nakba Memorial

### Palestine's Flora

Packed into Palestine's small area are snow-covered mountains, parched deserts, fertile fields, lush woodlands and long stretches of sand dunes. No less than four different geographical zones are included in Palestine, and the country's climate ranges from semi-arid to temperate to subtropical.

All of this makes Palestine home to a stunning variety of plants and animals. Some 47,000 living species have been identified in Palestine, with another 4,000 assumed to exist. There are 116 species of mammals native to Palestine, 511 kinds of birds, 97 types of reptiles and nine types of amphibians. Some 2,780 types of plants grow countrywide, from Alpine flowers on northern mountain slopes to bright red coral peonies and desert papyrus reeds in the south.

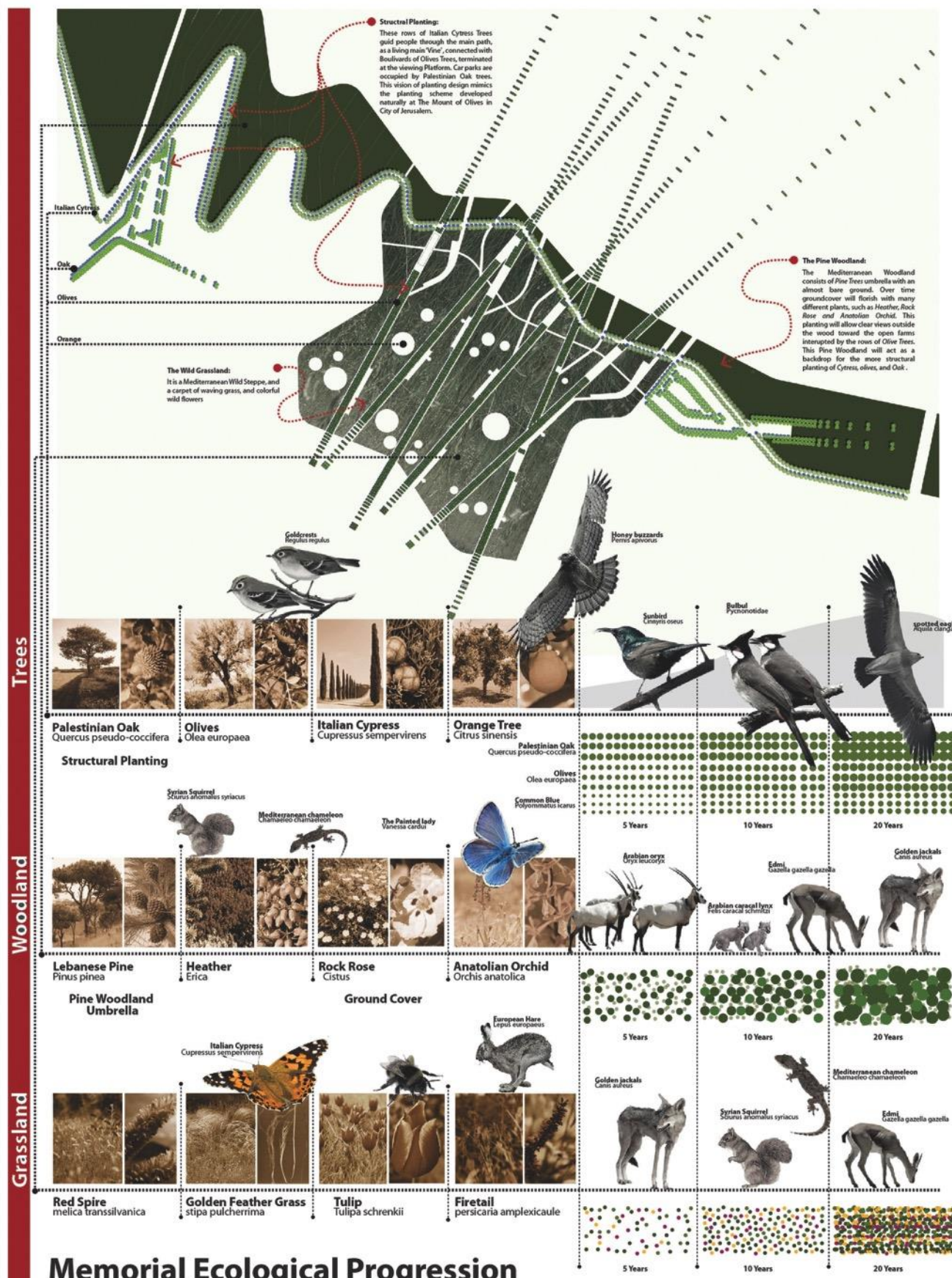
Today Palestine has 19 principal plant communities. They are:

1. Maquis (areas containing small trees and shrubs) and Forests
2. Oak Woodlands
3. Winter Deciduous (Montane) Forests
4. Mount Tabor Oak (*Quercus ithaburensis*) Woodlands
5. Carob and Terebinth Woodlands
6. Lotus and Herbaceous Vegetation
7. Savanna Mediterranean
8. Semi-Steppe
9. Cushion-Plants
10. Steppe
11. Atlantic Terebinth Steppe
12. Desert
13. Sand
14. Oases
15. Desert Savanna
16. Arava (Arava) Woodland
17. Swamps and Reed Thickets
18. Wet Saline
19. In areas of intense human activity

### Palestine's Fauna

The history of animal life in Palestine stretches back some 60 million years, when the sea covering the area finally retreated. It was during the Pleistocene era, however, a million years ago, that an influx of creatures especially decisive for the development of animal life in this part of the world arrived. Animals which are now characteristic of the East African savannas moved into the area: hippopotamus (*Hippopotamus amphibius*), rhinoceros, warthog (*Phacochoerus africanus*), striped hyena (*Hyaena hyaena*) and various species of gazelle. They were later joined by animals migrating from western and central Asia - wild horses (*Equus ferus*), wild asses, wolves (*Canis lupus*) and badgers.

Changes in climate, destruction of forests and hunting have resulted in the extermination of many of these species. The introduction of firearms at the end of the 19th century along with the tradition of hunting, for example, resulted in the rapid disappearance of roe deer (*Capreolus capreolus*), fallow deer (*Dama dama*), Arabian oryx (*Oryx leucoryx*), Syrian onagers (*Equus hemionus*), Syrian bears (*Ursus arctos syriacus*), cheetahs (*Acinonyx jubatus*), ostriches (*Struthio camelus*) and Nile crocodiles (*Crocodylus niloticus*).



### Softscape

### Circulation

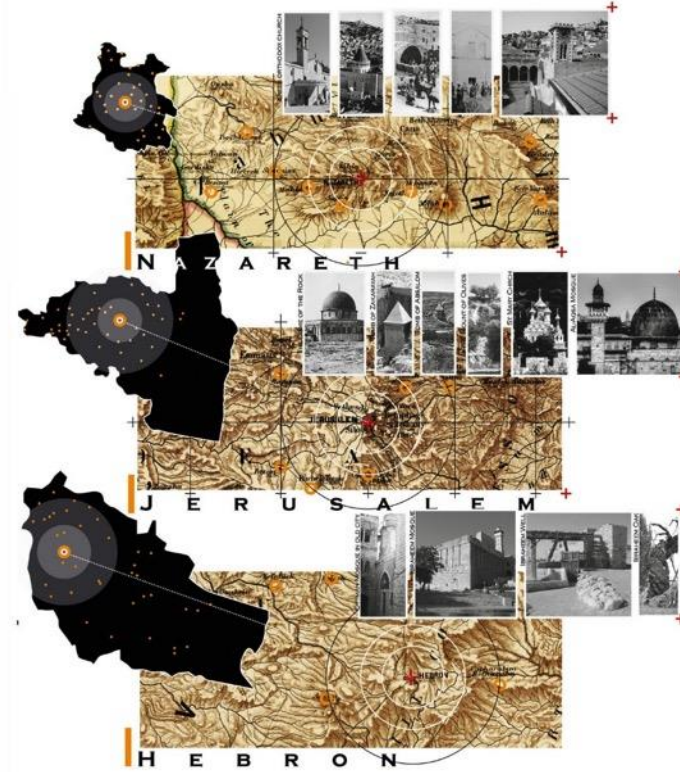
### Overground Built Objects

### Underground Built Objects

## Memorial Design layers

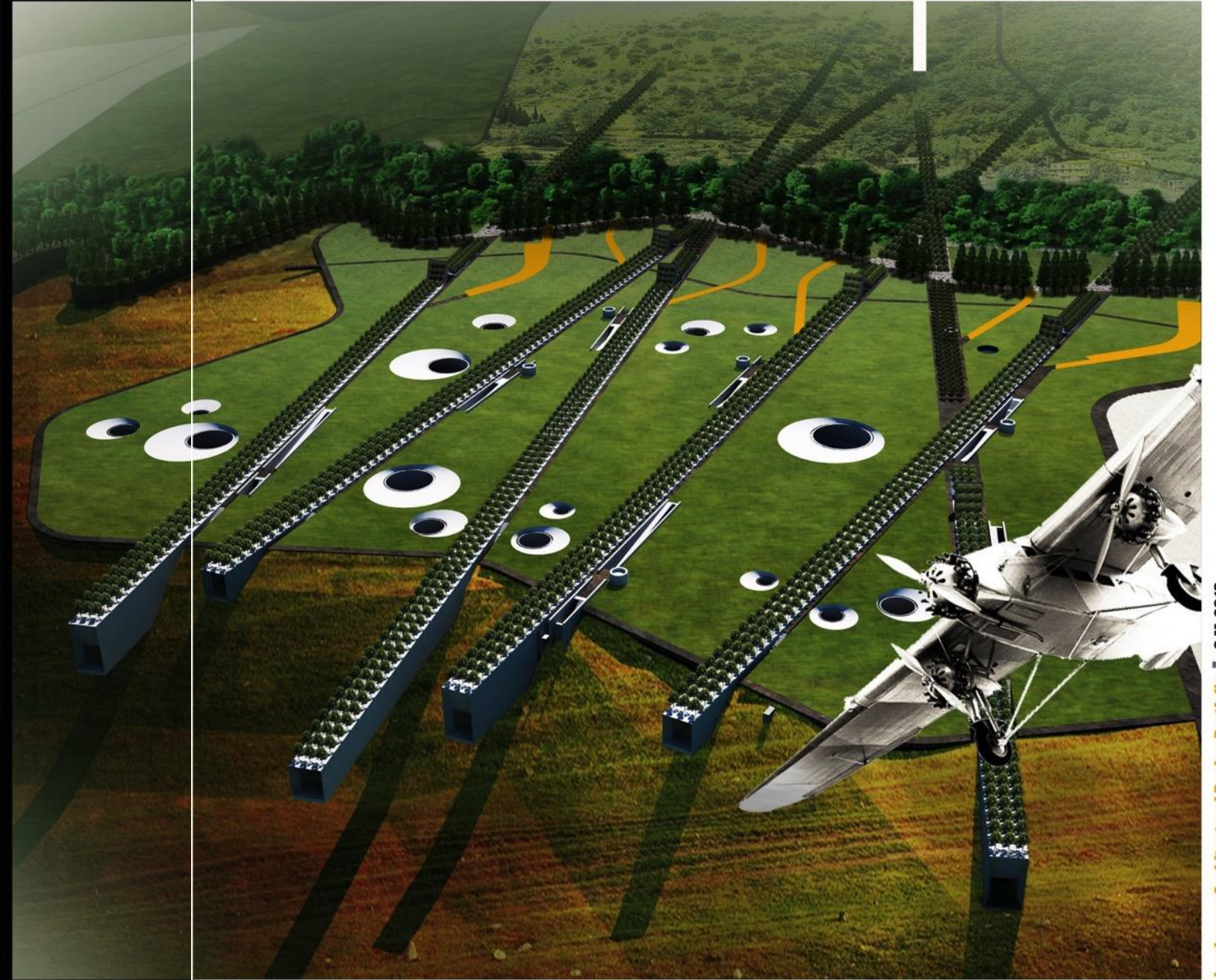


Destroyed villages are symbolised by holes of light in the museum ceiling



Palestinian Cultural Landscape

O.M. ©

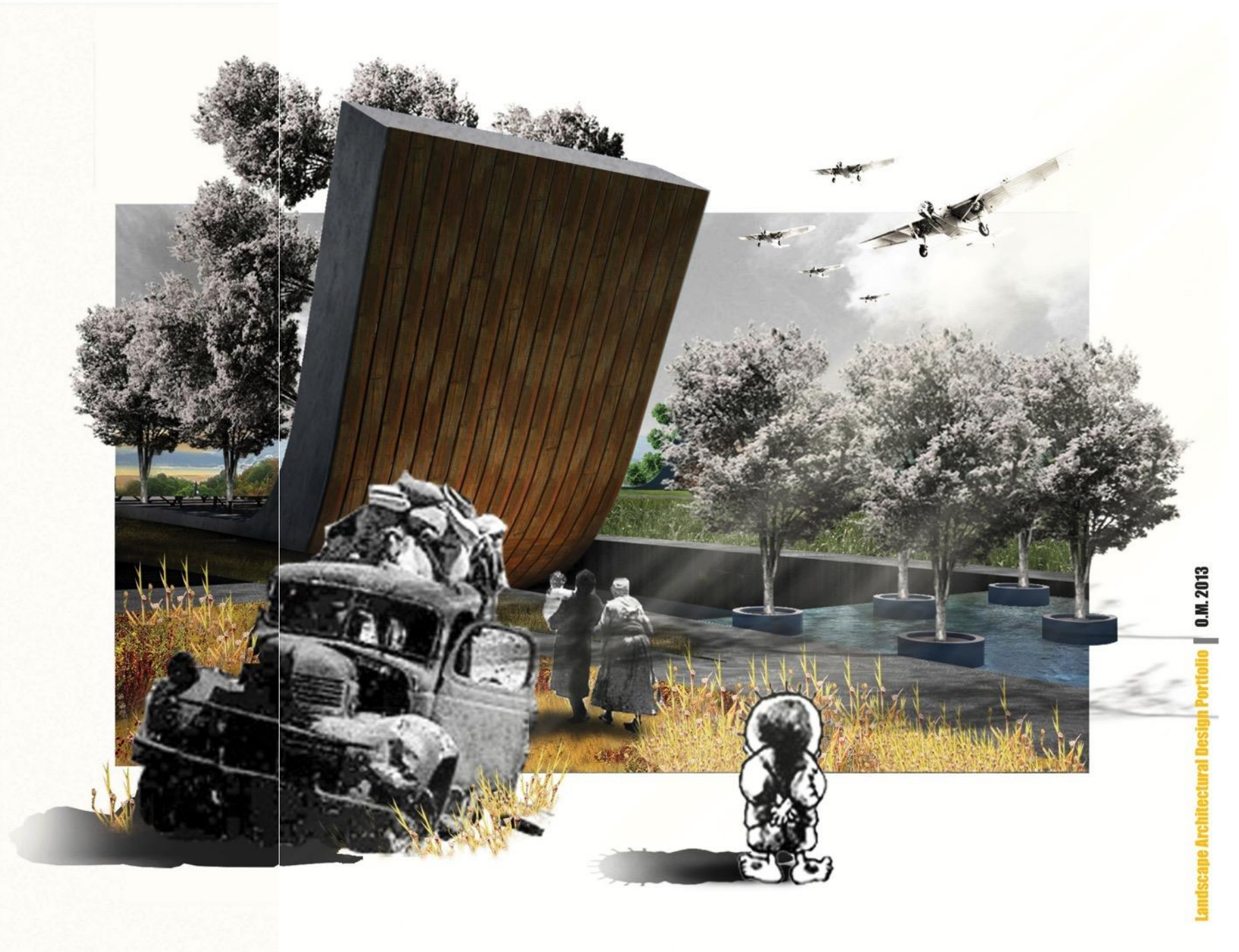




27 | 28



## Monument of Expulsion



29|30



## Displacement Corridor

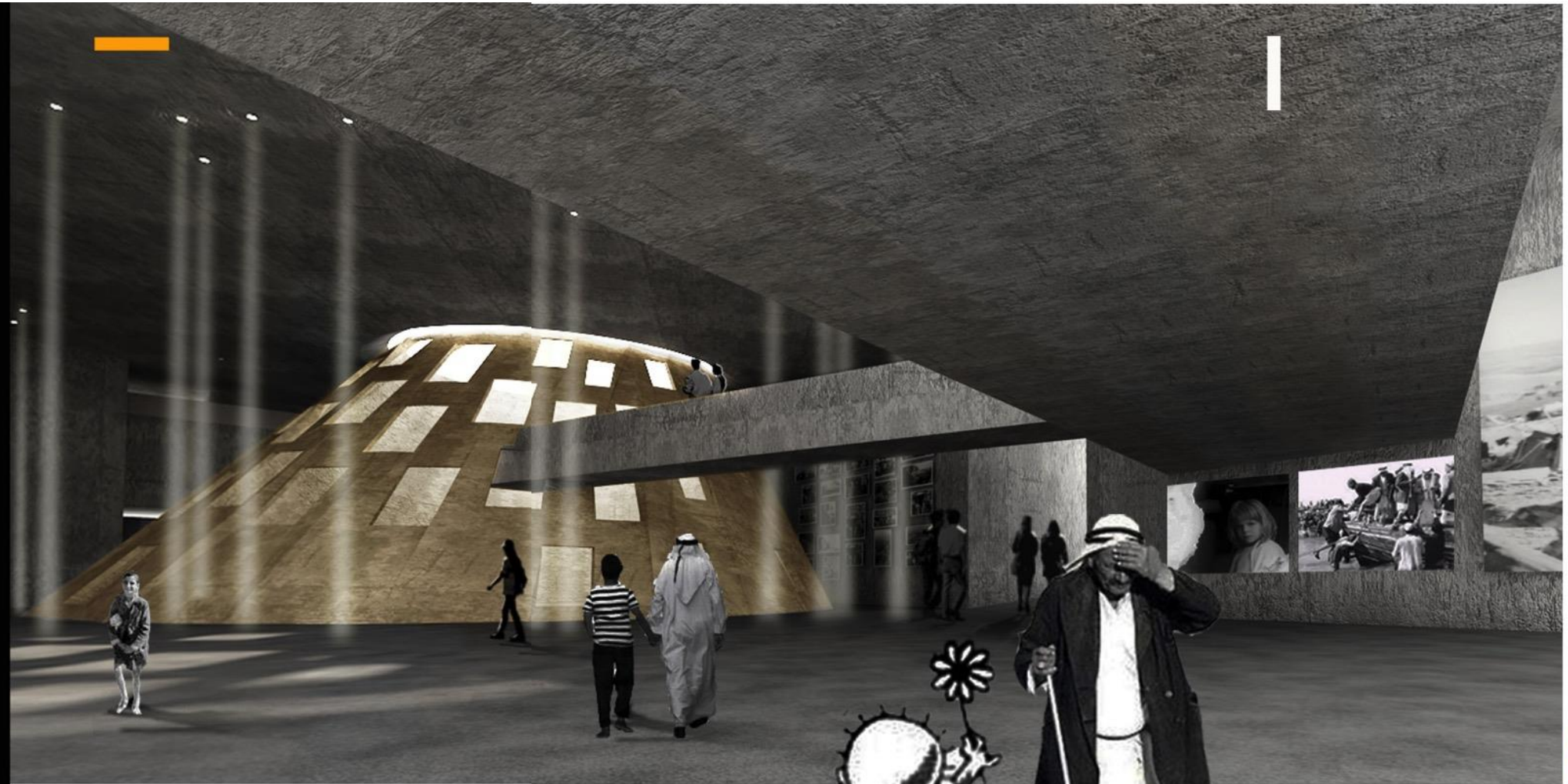




31 | 32

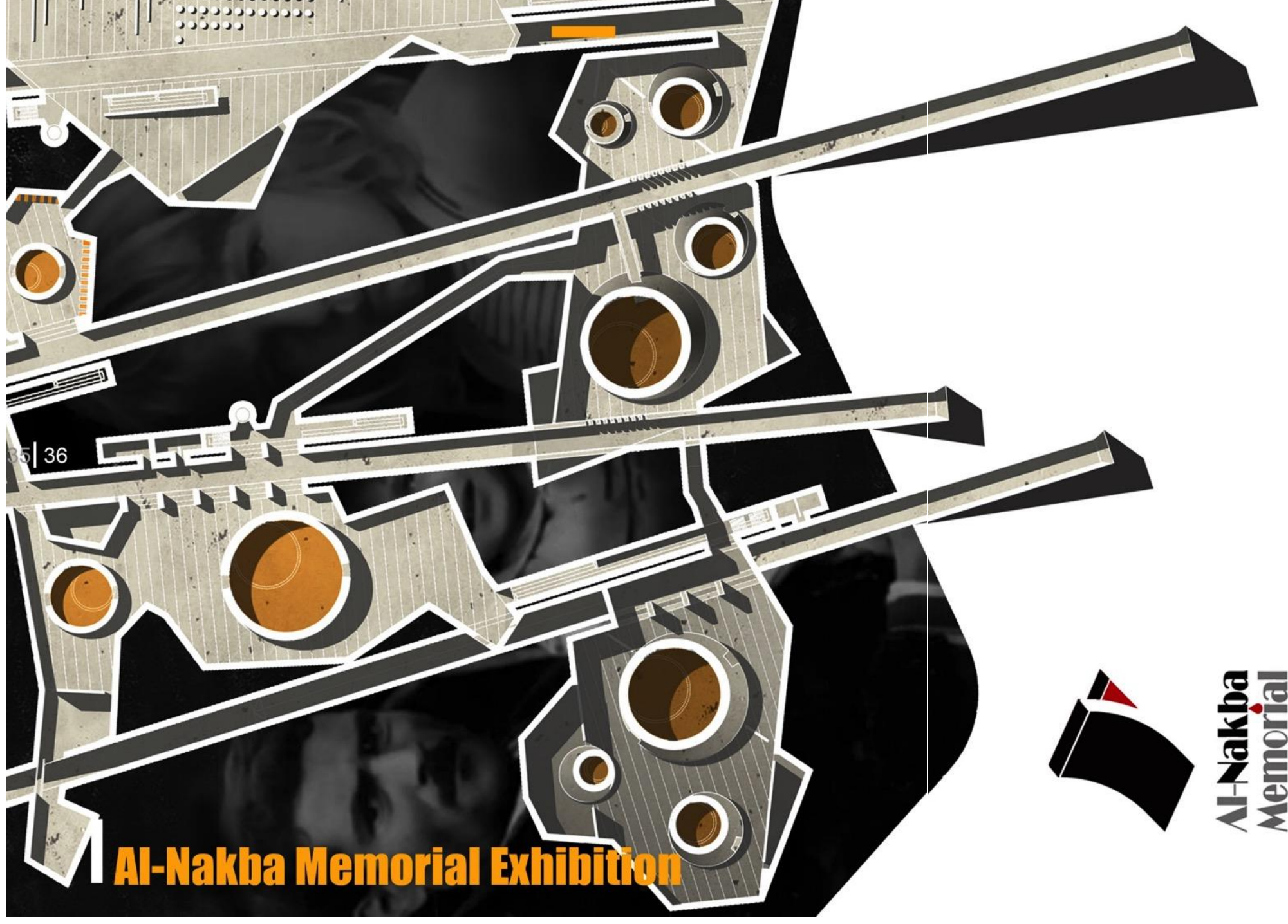


## Chambers of Voices









**Al-Nakba  
Memorial**

## **Al-Nakba Memorial: The Palestinian Memories of Displacement**

**Omar Mohammad**  
Practice-based Ph.D Research  
Edinburgh School of Architecture  
and Landscape Architecture  
University of Edinburgh

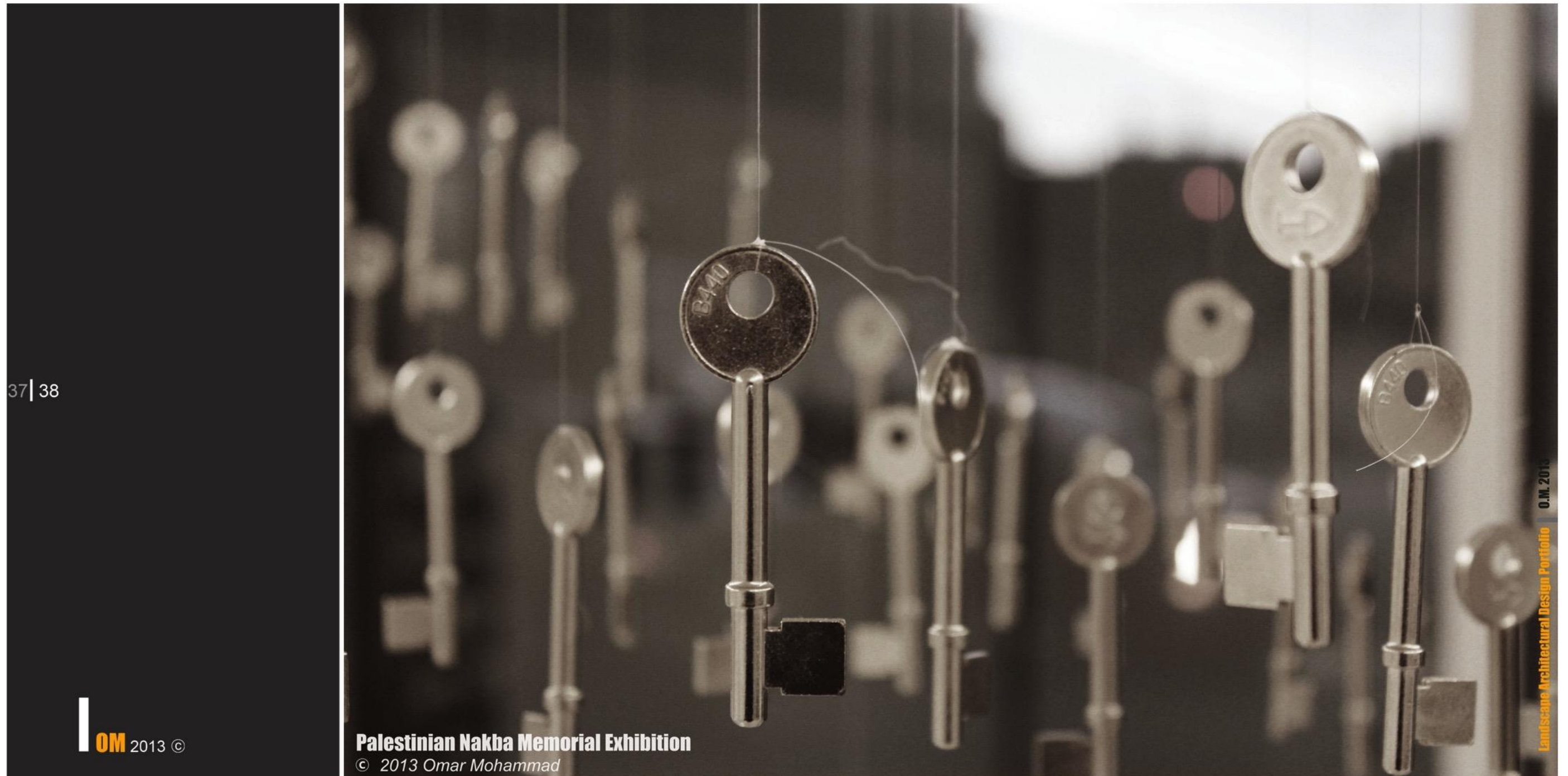
Tent Gallery  
Evolution House  
Edinburgh College of Art  
78 Westport, Edinburgh EH1 2LE

Opening: 7 October 2013 . 5pm  
8-14 October 2013 . 10am-5pm



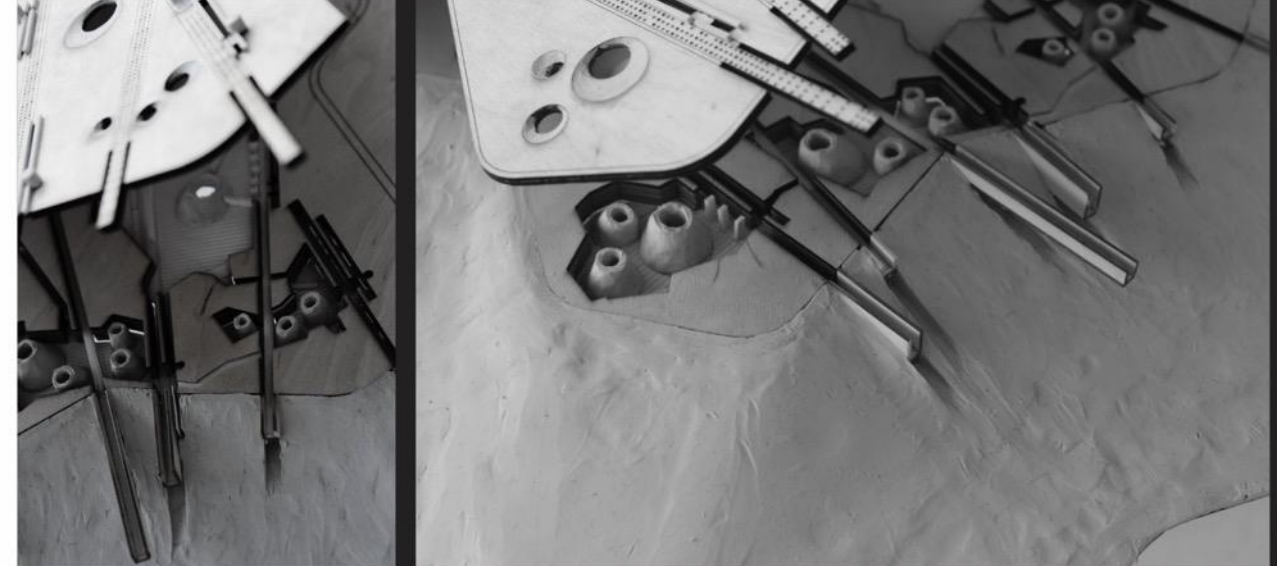
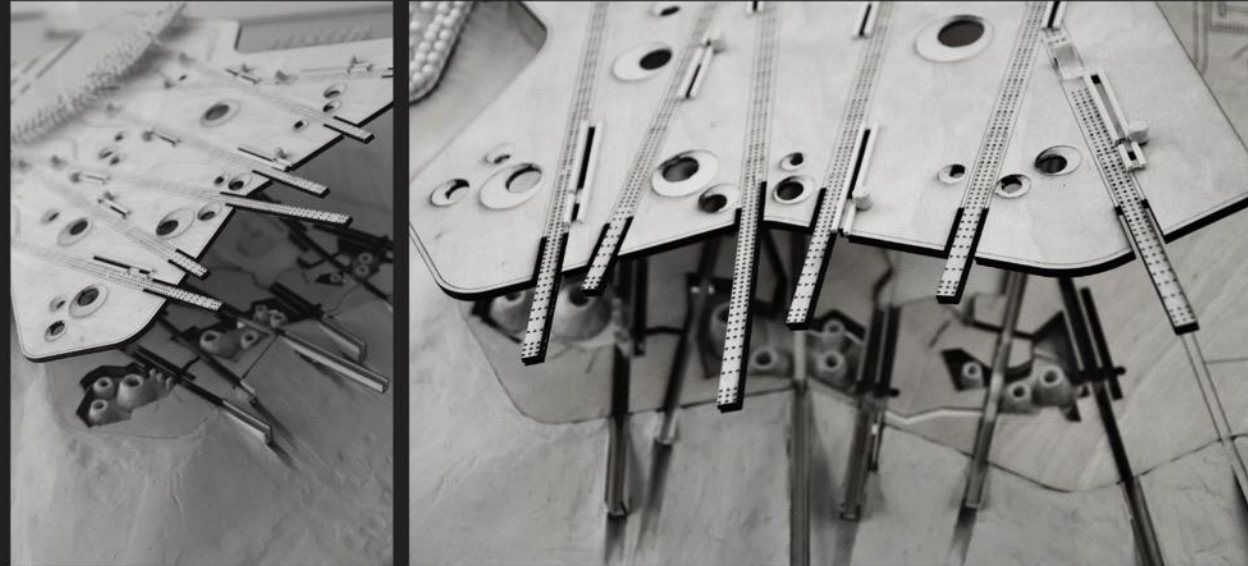
THE UNIVERSITY OF EDINBURGH  
Edinburgh College of Art





Keys of Return Installation

39 | 40







41 | 42





# Appendices





## Appendix B: Case study site locations

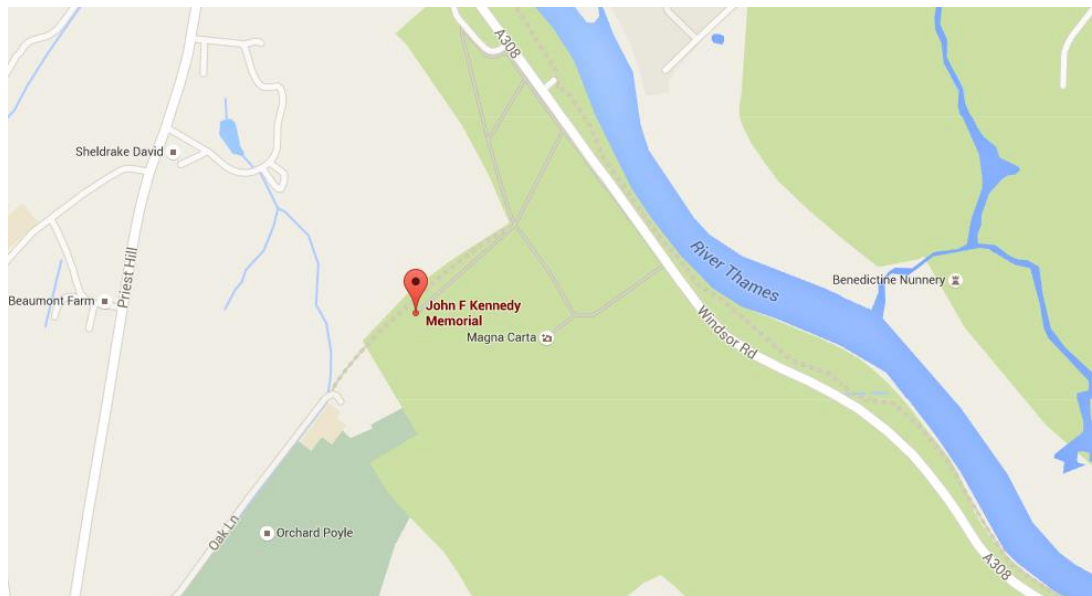
B1. Princess Diana Memorial Fountain (PDMF):



B2. 7July Memorial (7JM):



### B3. John F. Kennedy Memorial (JFKM):



## Appendix C: Personal project users' questionnaire

### C1. Printed samples of users' questionnaires:

This research is being run at Edinburgh College of Art to gain a Ph.D degree in Landscape Architecture. All information received from this survey will be confidential and used only for research purposes. For further information about this project, please contact the researcher on:

**O. M.**  
Edinburgh College of Art  
74 Lauriston Place  
Edinburgh  
EH3 9DF  
E-mail: [omar\\_larch@yahoo.co.uk](mailto:omar_larch@yahoo.co.uk)  
Mobile: +44(0)7725818343

**eca**  
edinburgh college of art



**Diana Memorial Fountain**  
**Visitor's Survey**  
Ph.D Research at Edinburgh College of Art  
School of Landscape Architecture

29• Which part/s of the memorial have you enjoyed most?

- ☐ The grass area  
☐ The bubbling/ cascading water  
☐ The reflecting pool  
☐ The description plaque  
☐ Other (Please specify).....
- ☐ The footpaths  
☐ The calm moving water  
☐ The seating edges along the fountain

### Part Three:

Now we want to know a little about you if you would not mind:

- 30\* Gender: ☐ Male ☐ female
- 31\* Age: ☐ 15-25 ☐ 26-45 ☐ 46-65 ☐ 66+
- 32\* Belief (Optional): ☐ Christian ☐ Muslim ☐ Jew  
☐ Other (Please specify)..... ☐ None
- 33\* Nationality: ☐ British ☐ Other (Please specify).....
- 34\* Profession: ☐ Architect/Landscape architect/Urbanist ☐ Artist/Designer  
☐ Politician ☐ Economist  
☐ Medic/Health specialist ☐ Historian  
☐ Other (Please specify)..... ☐ None
- If you are interested in receiving more information about this research in the future, please write your email address:.....

### Part One:

- 1• How many times you have visited Diana memorial fountain?.....times
- 2• How much time have you spent at the memorial?
- 3• Did you know any information about it before your first visit? ☐Yes ☐No
- 4• With whom you are visiting the memorial?  
☐Alone ☐Partner ☐Family ☐Group
- 5• What kind of tribute you have left (or you want to leave) at the memorial?  
☐Flowers ☐Letters ☐Candles ☐Spoken words  
☐Others (please specify): ..... ☐None

Please score the following questions on five points scale, and give reasons for your answer:		Not at all		Neutral		Very much
6.	How important is this memorial to you?	1	2	3	4	5
	Why?					
7.	How much do you feel you belong to this memorial place?	1	2	3	4	5
	Why?					
8.	How much do you feel emotionally attached to this memorial?	1	2	3	4	5
	Why?					
9.	How much do you enjoy this memorial?	1	2	3	4	5
	Why?					

10•	How much do you feel that the amount of time you spend being at the memorial is adequate?	1	2	3	4	5
	Why?					
11•	How much do you understand the meanings/symbols of this memorial?	1	2	3	4	5
	Why?					
12•	How much does the memorial provide comfort to you?	1	2	3	4	5
	Why?					
13•	How much have you learnt from the memorial?	1	2	3	4	5
	Please mention aspects you have learned from the memorial.					
14•	How much does the memorial provide you with freedom to do whatever you like?	1	2	3	4	5
	Why?					
15•	How much successful is your overall memorial visit?	1	2	3	4	5
	Why?					

## Part Two:

Please score the activities listed below and your own suggested ones, in terms of how important they are for you personally, and how much successful carrying out these activities has been at the memorial. On the five-point scale, '1' means not important/not successful, and '5' means very important/very successful.

Activities memorial encourages you to engage with		Importance			Success						
	Memorial encourages me to:	Not at all	Neutral	Very much	Not at all	Neutral	Very much				
16•	...Sit on the Grass	1	2	3	4	5	1	2	3	4	5
17•	...Play in the water	1	2	3	4	5	1	2	3	4	5
18•	...Read a text	1	2	3	4	5	1	2	3	4	5
19•	...Sit on its Features	1	2	3	4	5	1	2	3	4	5
20•	...Stroll	1	2	3	4	5	1	2	3	4	5
21•	...Think	1	2	3	4	5	1	2	3	4	5
22•	...Touch its features	1	2	3	4	5	1	2	3	4	5
23•	...Observe	1	2	3	4	5	1	2	3	4	5
24•	...Contemplate	1	2	3	4	5	1	2	3	4	5
25•	...Express myself	1	2	3	4	5	1	2	3	4	5
26•	...Write	1	2	3	4	5	1	2	3	4	5
27•	...Remember	1	2	3	4	5	1	2	3	4	5
28•	...Place Tributes (flowers, letters, etc.)	1	2	3	4	5	1	2	3	4	5
	Others:										
		1	2	3	4	5	1	2	3	4	5
		1	2	3	4	5	1	2	3	4	5



This research is being run at Edinburgh College of Art to gain a Ph.D degree in Landscape Architecture. All information received from this survey will be confidential and used only for research purposes. For further information about this project, please contact the researcher on:

**O. M.**  
Edinburgh College of Art  
74 Lauriston Place  
Edinburgh  
EH3 9DF  
E-mail: omar\_larch@yahoo.co.uk  
Mobile: +44(0)7725818343

**eca**  
edinburgh college of art



**7 July Bombings Memorial**  
**Visitor's Survey**  
PhD Research at Edinburgh College of Art  
School of Landscape Architecture

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**O. M.**  
Edinburgh College of Art  
74 Lauriston Place  
Edinburgh  
EH3 9DF  
E-mail: omar\_larch@yahoo.co.uk  
Mobile: +44(0)7725818343

**eca**  
edinburgh college of art



**J. Kennedy Memorial**  
**Visitor's Survey**  
PhD Research at Edinburgh College of Art  
School of Landscape Architecture

C2. Princess Diana Memorial Fountain (PDMF) online questionnaire:

## User's Questionnaire for Princess Diana Memorial Fountain

*Please note that all information obtained from this questionnaire will be confidential and used only for research purposes.*

This questionnaire consists of three parts:

**Part one:** Personal and general questions.

**Part two:** Questions about your visiting experience.

**Part Three:** The supportiveness of memorial design to your personal activities.



**Aerial View of Diana Memorial Fountain**

### **Part One**

- Name (optional):
- Gender: Male / Female
- Age:
- Nationality:
- How many times you have visited Diana memorial fountain?
- Did you know any information about it before your first visit? Yes / No
- With whom you have visited the memorial? Alone/ Partner/ Family/ Group

### **Part Two**

Please score the following questions on five points scale, and give reasons for your answer.

• **How important is this memorial to you?** (1 2 3 4 5)

(5=very important 1=not at all important)

Please give reasons for your answer.

1- .....

2- .....

• **How much do you feel you belong to this memorial place?** (1 2 3 4 5)

(5=very much 1=not at all).

Please give reasons for your answer.

1- .....

2- .....

• **How much do you feel emotionally attached to this memorial?** (1 2 3 4 5)

(5=tend to be very emotionally attached to the memorial 1=tend to be detached from this place). Please give reasons for your answer.

1- .....

2- .....

• **How much do you enjoy this memorial?** (1 2 3 4 5) (5=enjoy a great deal 1=don't enjoy at all). Please give two reasons.

1- .....

2- .....

• **Which parts of the memorial have you enjoyed most?** (The grass area. The pathways. The fountain seating edges. The noisy bubbling/cascading water. The calm water pools. The memorial description plaque.)

Other (Please specify).....

• **How long have you stayed at the memorial?**

• **And how much do you feel that the amount of time you spend being at the memorial is adequate?** (1 2 3 4 5) (5=very adequate 1=not at all adequate).

Please give reasons.

1- .....

2- .....

• **How much do you understand the meanings/ symbols of this memorial?** (1 2 3 4 5)

(5=very accessible 1=not at all accessible).

Please give reasons.

1- .....

2- .....

- How much does the memorial provide comfort to you? (1 2 3 4 5)

(5=very comforting 1=not at all comforting).

Please give reasons.

1- .....

2- .....

- How much have you learnt from the memorial? (1 2 3 4 5)

(5=very informative 1=not at all informative).

Please mention the aspects you have learned from the memorial.

1- .....

2- .....

- How much does the memorial provide you with freedom to do whatever you like?

(1 2 3 4 5) (5=very much freedom 1=no freedom at all).

Please give reasons.

1- .....

2- .....

- If you left any tribute (letters, flowers, etc.) at the memorial, what was it?

.....

- What do you anticipate the outcome of your memorial visit to be? (1 2 3 4 5)

(5=extremely successful 1=a total failure).

Please give reasons.

1- .....

2- .....

### Part Three

Please select the activities the memorial has encouraged you to engage with from of the list bellow, and add more if you have other suggestions. Please score your selected activities and other suggested ones, in terms of how important they are for you personally and how much successful carrying out these activities has been at the memorial, on five-point scale (where '1' is not important/not successful and '5' is very important/very successful).

Activities memorial encourage you to engage with	Importance	Success
--	------------	---------



	Memorial encourages me to sit on the grass	1 2 3 4 5	1 2 3 4 5
	Memorial encourages me to Play in the water	1 2 3 4 5	1 2 3 4 5
	Memorial encourages me to read a text	1 2 3 4 5	1 2 3 4 5
	Memorial encourages me to sit on its features	1 2 3 4 5	1 2 3 4 5
	Memorial encourages me to walk around/through	1 2 3 4 5	1 2 3 4 5
	Memorial encourages me to think	1 2 3 4 5	1 2 3 4 5
	Memorial encourages me to touch its features	1 2 3 4 5	1 2 3 4 5
	Memorial encourages me to observe	1 2 3 4 5	1 2 3 4 5
	Memorial encourages me to contemplate	1 2 3 4 5	1 2 3 4 5
	Memorial encourages me to write	1 2 3 4 5	1 2 3 4 5
	Memorial encourages me to remember	1 2 3 4 5	1 2 3 4 5
	Memorial encourages me to place tributes (flowers, letters.. Etc)	1 2 3 4 5	1 2 3 4 5
	Others:		
		1 2 3 4 5	1 2 3 4 5
		1 2 3 4 5	1 2 3 4 5
		1 2 3 4 5	1 2 3 4 5

• Comments or suggestions about the survey:

.....

.....

.....

.....

.....

Thank you very much for taking the time to fill in this questionnaire

C3. Piling qualitative responses of online questionnaire:

SPPCV dimensions	Participants' responses
Importance	1 Two basic architecture. You cannot appreciate it because it is too flat, just water flow, you cannot link to Princess Diana.

	<p>2 It is a very elegant expression</p> <p>3 this memorial is not important to me strictly in the sense of remembering Princess Diana, but as a brave, unique and original piece of landscape architecture. It is the experience of this memorial and its offer to the public that is important to me.</p> <p>4 It is a significant piece of landscape design in an important urban park and relating to a well known public figure.</p> <p>5 For me it is not 'important' from the emotional point of view. For me was 'interesting' from the architectural and social point of view</p> <p>6 Well i didnt figure that this is a memorial until the third time of my visit, actually i visit the place more than 10 - 20 times !?</p> <p>7 it is just an attraction to visit in london but it has no significance to me personally.</p> <p>8 because I visited the fountain just to see the water and watch the fountain not for its memorial meaning</p> <p>9 It is just not important!</p> <p>10 1- Because it is important to my friend who is doing a research about it 2- Its idea (rotation, time, events) is somewhat similar to a project in Syria Sinan Hasan's al-Abassiyn Square.</p> <p>11 1- I like it because of its special design, very unique. My country is famous because of its fountains but never see such innovative and modern aesthetic fountain 2- it shows the liberal society of Britain and its royal family who respect peoples beloved despite of all controversial about Diana.</p> <p>12 Used to live near to Hyde Park, so stumbled upon it first time and then went back a few times as its in a nice part of the park!</p> <p>13 As a Landscape Architect I use to have a look at these proposals so to have an approach to different projects.</p> <p>14 It is not very impressive and not that obviously related to Lady Diana.</p> <p>15 The memorial is not very important to me personally. But as a landscape architect, it is a valuable precedent, both in concept and detail.</p>
<p>Belonging</p>	<p>1 I found it meaningless, whether to Diana or to any people</p> <p>2 I've only visited once, but should my visits be more frequent I believe I would form a sense of belonging</p> <p>3 I felt like a visitor to it, experiencing it as a one-off rather than a feeling of belonging.</p> <p>4 I do not belong to it ... but, if anything, it partly belongs to me. It is part of my "collective memory" as a Briton who was resident in Britain when Princess Diana died and at the time I was paying taxes to the Treasury that paid for the memorial.</p> <p>5 Probably being Spanish doesn't help to feel any identification with the fountain</p> <p>6 see above</p> <p>7 because I dont have any feeling about it</p> <p>8 I don't feel anything when I visit it; it is just nice water in a hot summer day</p> <p>9 1- Because I belong to London. 2- 2- Because I visited it with a friend.</p> <p>10 1- It is totally western and British for me. I can't see any connections to myself and my backgrounds. I could say in such cases I remember the</p>

	<p>Shah-e Jahan Tajmahal which is built in memory of a woman. Which also is not in my country but because it has some connections to Islam world and a Persian Princess I feel proud of it.</p> <p>2- 2- For me it is political as well which makes me not to feel comfortable to talk and think about it</p> <p>11 I suppose as much as anywhere else. Its got a nice atmosphere.</p> <p>12 I feel that place so different from my culture, it is not in any way part of me.</p> <p>13 It is not my kind of place</p> <p>14 To me the memorial is more like a part of Hyde Park, do not feel personally attached to it.</p>
Attachment	<p>Again, I'd describe this more as an experiential landscape than a strictly memorial landscape, in my interaction both mental and physical with the space. But it is a memorable place, even if not memorial!</p> <p>1 I do not understand the question. Is the word "are" missing between "you" and "emotionally"? And if so, the answer is 3 ... reasonably attached. But I feel more attached as a landscape architect (to a major project by an accomplished practitioner) than as a nostalgic Briton.</p> <p>2</p> <p>3 1- I liked it a lot but I do not feel that I am emotionally attached to it. 2- None of my love stories or childish memory relate to it.</p> <p>4 1- When she died, we didn't have much access to the news of her death in my country, Iran; and I was very young at that time. So never have followed her news and although as a human I feel sorry for her death and its myth behind it, I can see what makes her special. If she was an important person, I could say definitely not for us in that part of the world. 2- It gave me calm effect.</p> <p>5 The reason is that because we miss the Princess</p> <p>6 Emotionally i like the idea about it, its remind by life and death, and of course about Diana</p>
Enjoyment	<p>1 It was fun, well designed and soothing</p> <p>2 An interactive space, a unique feature, it stuck in my memory and I enjoyed investigating and experiencing it.</p> <p>3 It was pretty damned good the first time around, a) because it was a blistering hot day and whatever the restrictions, it was a fabulous place to cool your feet, and b) because I had no idea how I would react to it ... and so there was a higher level of anticipation than on the second (more overcast) occasion.</p> <p>4 I enjoy the water movement, the shape of the fountain... the engineering and architectural side of it.</p> <p>5 Too crowds especially kids, so i dont enjoy it that much particularly in good weather where we barely can get close to it.</p> <p>6 it is nice to be by the water on a sunny day</p>

Readability	7	because I had a good time with my son playing with the water and seating on the stone edges, enjoying the presence of other people there as well
	8	I enjoy is so much in hot weather
	9	1- I enjoy walking and sitting close to water 2- I like abstract things.
	10	1- It is aesthetically enjoyable and rich, it has unusual rhythm and smooth lines 2- I like to spend my time there. Some who it is romantic as well.
	11	I found it very enjoyable, it is a different place to be in and explore your senses. The presence of water in different types of movement is quite pleasing.
	12	Some of the water features are quite fun, but not enough
	13	I enjoyed the visit. Partly because I was with my parents, and they liked the memorial; partly because it was a quite day in the park, we had time and space to explore the memorial.
	14	Because we feel that we are around the Princesse Diana.
	1	It is just a water flow, It is not clear what does it mean, pureness, openness of dealing with others, simplicity, friendliness?? It was not known. and it was tooo simply. It should have made the people think. It does not leave any feeling at the heart, it doesn't allow a person to imagine the meaning behind it..
	2	I wasn't paying attention to any symbolic meaning, I simply enjoyed the feature
	3	We were probably quite lazy with our interpretation of this as a piece of memorial landscape, getting carried away with the experience of it rather than contemplating its meaning. It was a reflective place, but not one to learn about who it is actually commemorating.
	4	The terms on your scale do not reflect your question. But I am well aware of the issues that it addressed because it was subject to a public competition and It was widely discussed in the popular media and professional press.
	5	I didnt read anything about it but I could think in many connections between the fountain and Diana's life. I would like to get more info about the designer concept philosophy
	6	Nothing make me feel that its a memorial, still prefer to the traditional statue way.
	7	to me it was not meaningful because I did not understand the meaning behind it
	8	I didn't think about it!
	9	1- It is very obvious and need to be sensed rather than understood. 2- I chose 4 and not 5 because I know only basic things about Princess Diana life.
	10	1- I can't say I totally understand the symbols for her memorial but I can see the cycle of life and and its hardship and the unequal flow of life events and stories in every bodies life. 2- I can also see some femininity in the place and motherhood and purity because of the water and form of the place
	11	It is pretty straight forward that the variety of the water course is a metaphor of Diana's life, but still there are some strong and enhanced points which can't be explained or can have many meanings depending on each observer:
	13	It is not all that obvious that it is related to Lady Diana
	14	The oval shape, the waving earth and the water are all very feminine. it reflects the quite and shy nature of Diana, and the different effects of water represent various

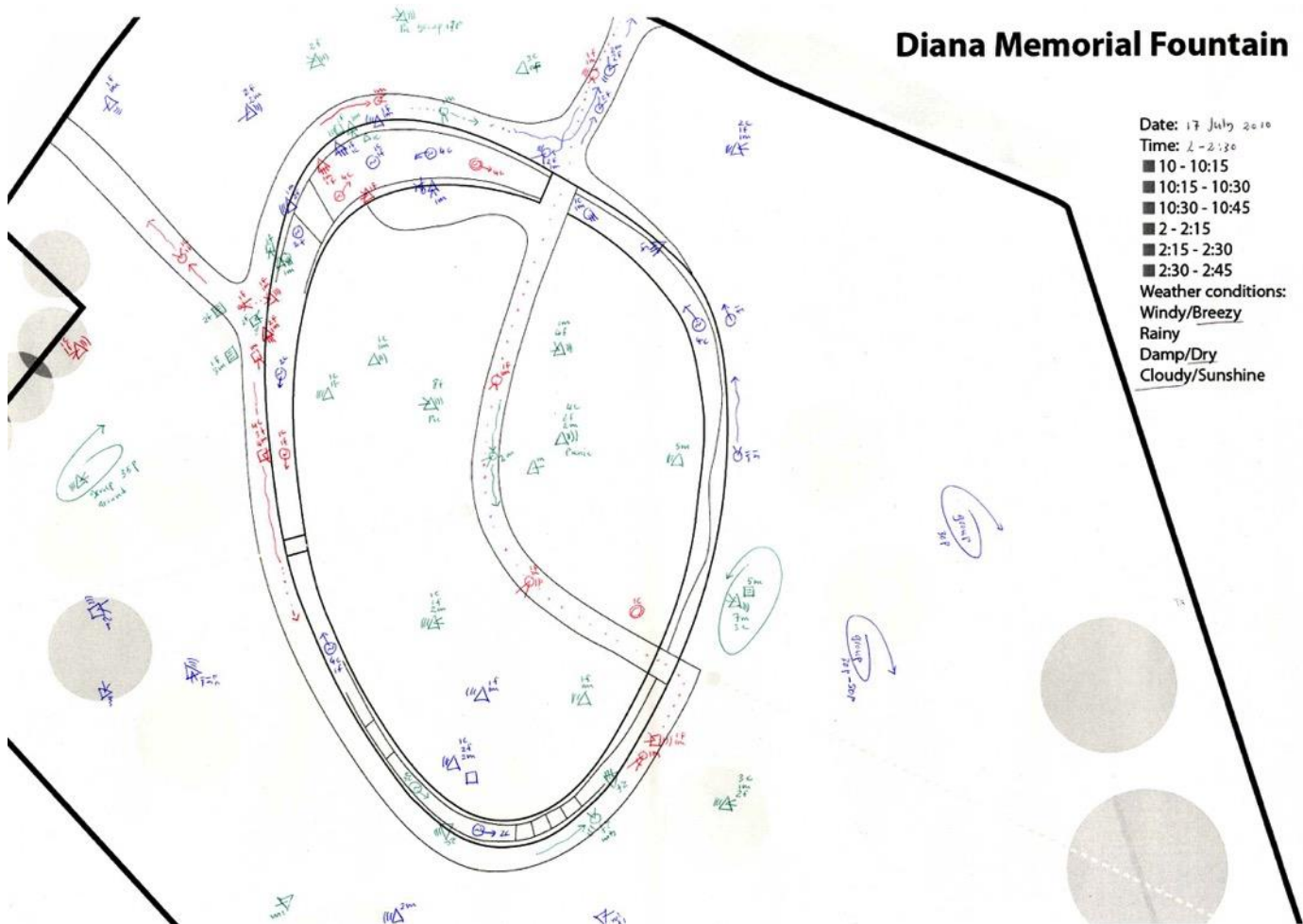
	<p>stages in her short but eventful life.</p> <p>15 We understand a lot, the life isn't fair to take away a beautiful person like Diana</p>
Didacticism	<p>1 From a design point of view there was a lot to admire and learn</p> <p>2 I wouldn't have said this was necessarily a place to learn, but a place which offers a setting for reflection.</p> <p>3 It is an object lesson in the use of aero-dynamic software for the design of moving water and the way that people engage with it. But, yet again, I don't think you mean "how much have you learned as a landscape architect". I think that you are presuming that the purpose of the fountain is solely as a memorial and that the visitor is going there only to grieve ... which I was not.</p> <p>4 Water should be always moving, its sound is as pleasant as its aspect</p> <p>5 sorry no reason</p> <p>6 1- Designing simple memorials. 2- I chose 4 because I do not feel that I went there to learn something but rather to have new experience.</p> <p>7 1- Nothing particularly but I can say it emphasises this feeling in me that life is very short and no matter how important you are you have your own problems and difficulties and when you leave the world it is better to leave with positive and good memories behind yourself. 2- The other thing is that you can change your destiny and sometimes you have to pay for what you have chosen but at least you show others that nothing is impossible</p> <p>8 I have learnt things in an academic way, but not much about Lady Diana's life and importance.</p> <p>9 It's a small fountain</p> <p>10 I think the idea behind the design is to let visitors interpret meaning of the memorial themselves, rather than impose them with ideas and information.</p>
Catharsis	<p>1 Not perhaps for its symbolic meaning but because it is a soothing water experience with a variety of sounds, reflections and movements.</p> <p>2 If you felt more attached to and knowledgeable about the person it is a memorial to, I'd imagine this is a very comforting place to visit. It celebrates something quite sensitive, and doesn't bombard you with fact and stories and grand gestures, it is yours to make of it what you need to.</p> <p>3 A hell of a lot ... it's a good place to cool your feet on a hot day. But again, your question is not well framed. If you're trying to get at the issue of grief about the death of Princess Diana, it's no comfort at all because I don't feel that much grief about it. Sure, it was sad that the relatively young, recently divorced, ex-wife of a somewhat devious western European (possible) future monarch was killed in a motor accident while cavorting around Paris with her playboy lover...but I do not need any comfort about that.</p> <p>4 i love being surrounded by water. The sound of water is refreshing and peaceful</p> <p>5 Its soo smooth and calm, well engaged in the Hyde park.</p> <p>6 just the water and surrounding green makes it enjoyable</p> <p>7 it provide comfort becasue of the wonderful nature of the green and water and I personally like water,</p> <p>8 1- I was comfortable to be close to water but not comfortable to remember her life difficulties.</p>

	<p>2- But those difficulties would exist in the life of any person, except her death circumstances.</p> <p>9. I find it very relaxing and comforting, the flow of water, the circle form of the pool (if it is the right word) Maybe because when I was there it was very quiet and few people were around</p> <p>10 It is an open place, some sort of shelter some where would have given me more confort.</p> <p>11 There are some seats and grass to sit on</p> <p>12 As mentioned earlier, it gave me calm effect. I felt quite comfortable spending some time there.</p>
Freedom	<p>1 This is one of its best qualities, it lets you be playful OR reflective, which is a great balance to have achieved, and makes this a relevant landscape for a lot of users and visitors.</p> <p>2 Well, I did everything that I wanted BUT what you are really asking, I think, is whether the fact that it is fenced off and has 'lifeguards' in attendance and regulations about contact with the water is restrictive. And yes, it would be if you were intent on diving into the water ... but I wasn't and so I didn't find it restrictive.</p> <p>3 Like a lot of people here, i like a calm weekend with good weather, the designers provide us with everything here especially the environment.</p> <p>4 as far as I remember that you can do what ever you want there</p> <p>5 1- The memorial consists of stone and water: I could sit-down and walk freely on the stone and I could play with water if I want. 2- The memorial is located in open area and I felt that no one is watching the visitor. I do not remember if there was a cctv somewhere there.</p> <p>6 It is ok to look at, but not spectacular</p> <p>7 Ease access; gental gradient of footpath; options for seating, i.e on the edge of memorial fountain or on grass areas.</p>
Success	<p>1 It has stuck in my mind, and I would visit it again, which must be good and a sign of a successful scheme.</p> <p>2 I got my feet cooled; my legs rested and some good photographic images. But, again, that's not anticipated ... that's what happened.</p> <p>3 it give the enjoyment one need when going for a walk</p> <p>4 sorry but I did not make any anticipation</p> <p>5 1- I enjoyed being there so the visit was successful. 2- I experienced something new.</p> <p>6 1- It has a touristic aspect for me in the first place to see a place which everybody is talking about. 2- And I have spent a romantic time there which make me to go there again and shows its success</p> <p>7 I was gratefully surprised with the finishings, and the fact that a creative idea can de made real.</p> <p>8 I didn't make a special trip to go there, I just happened to be in Hyde Park</p> <p>9 Good experience. Enjoyed visit, learnt a special piece of landscape architecture in detail.</p> <p>10 Celebration the life of a beautiful person.</p>

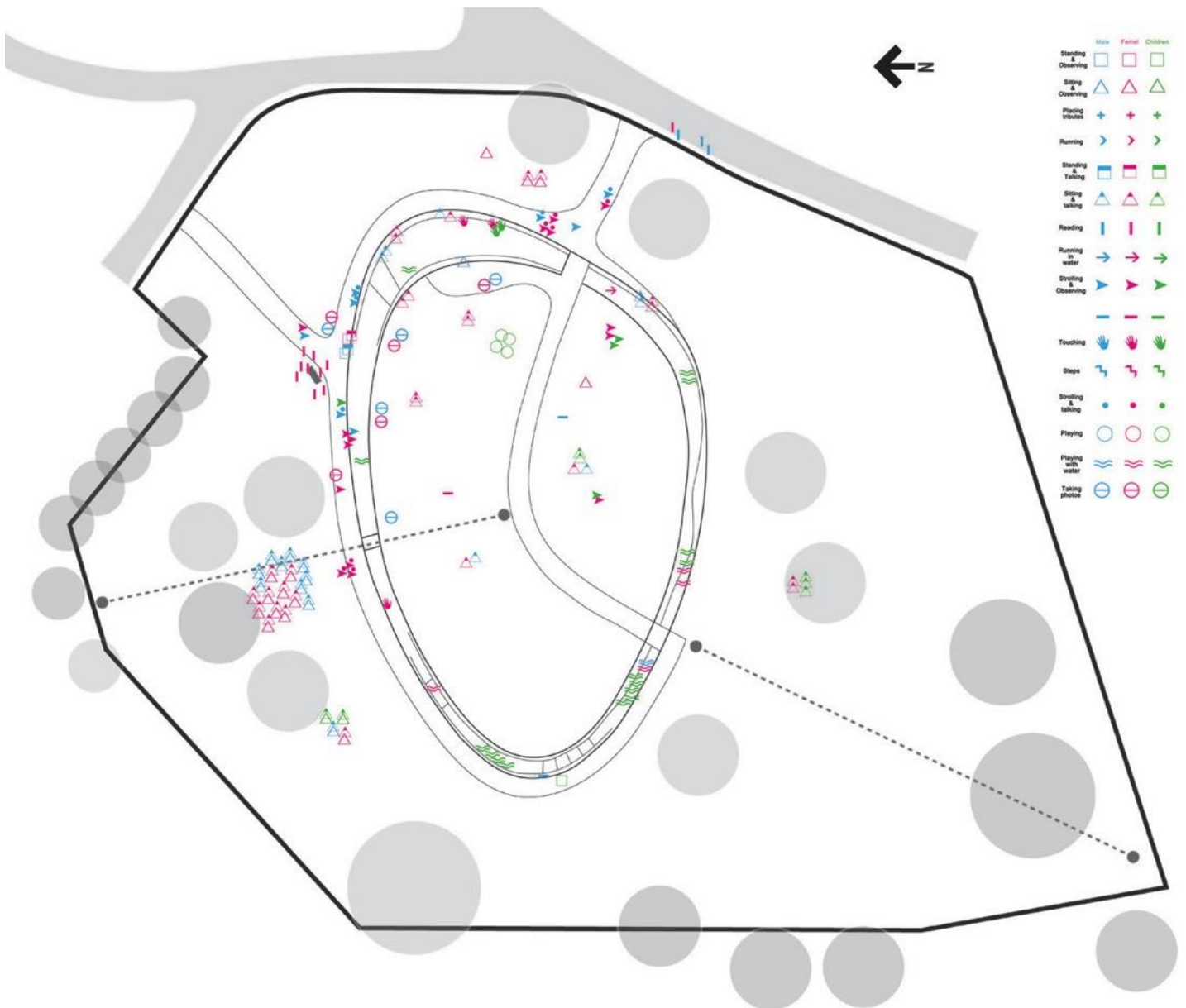
11 Again, I cant feel its a memorial just a normal lake where you cant catch the overall design until you press a break directly above it.

## Appendix D: Observation and behavioural mapping materials

D1. Sample of behavioural observation maps:

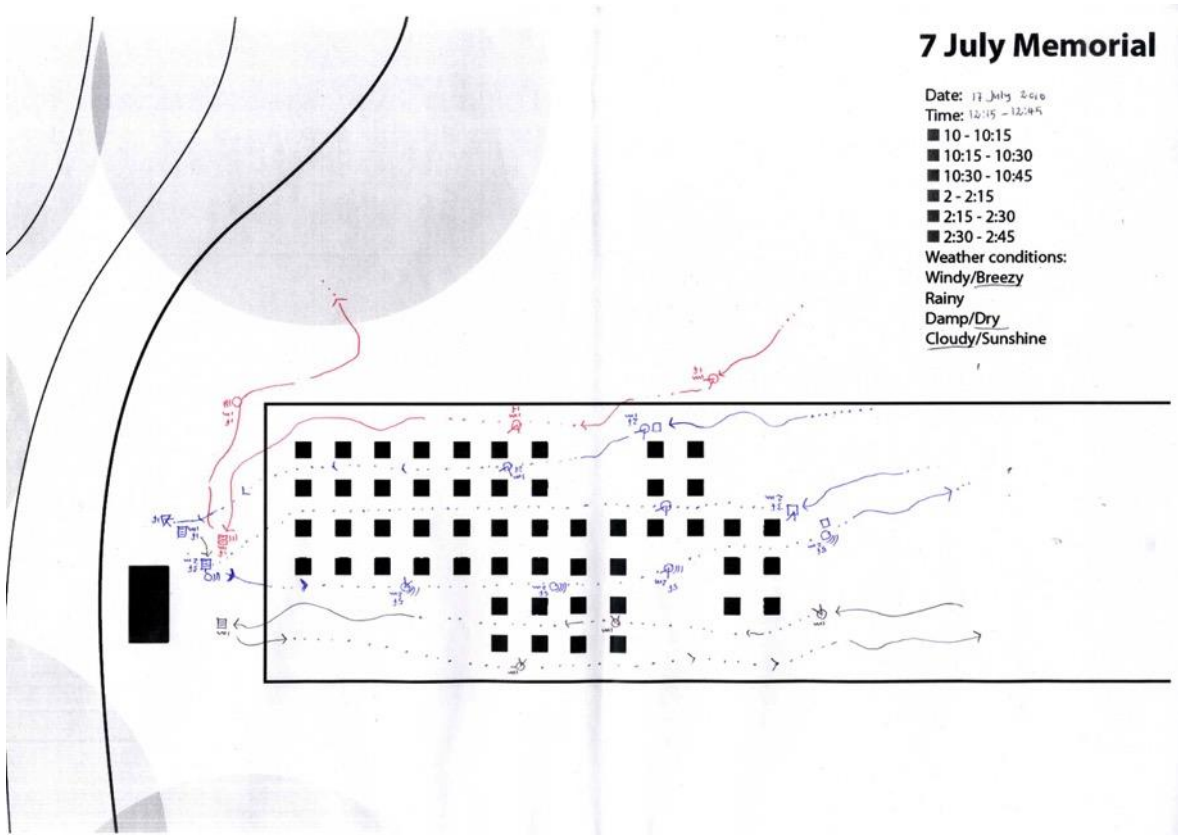


An episode of behavioural mapping at PDMF

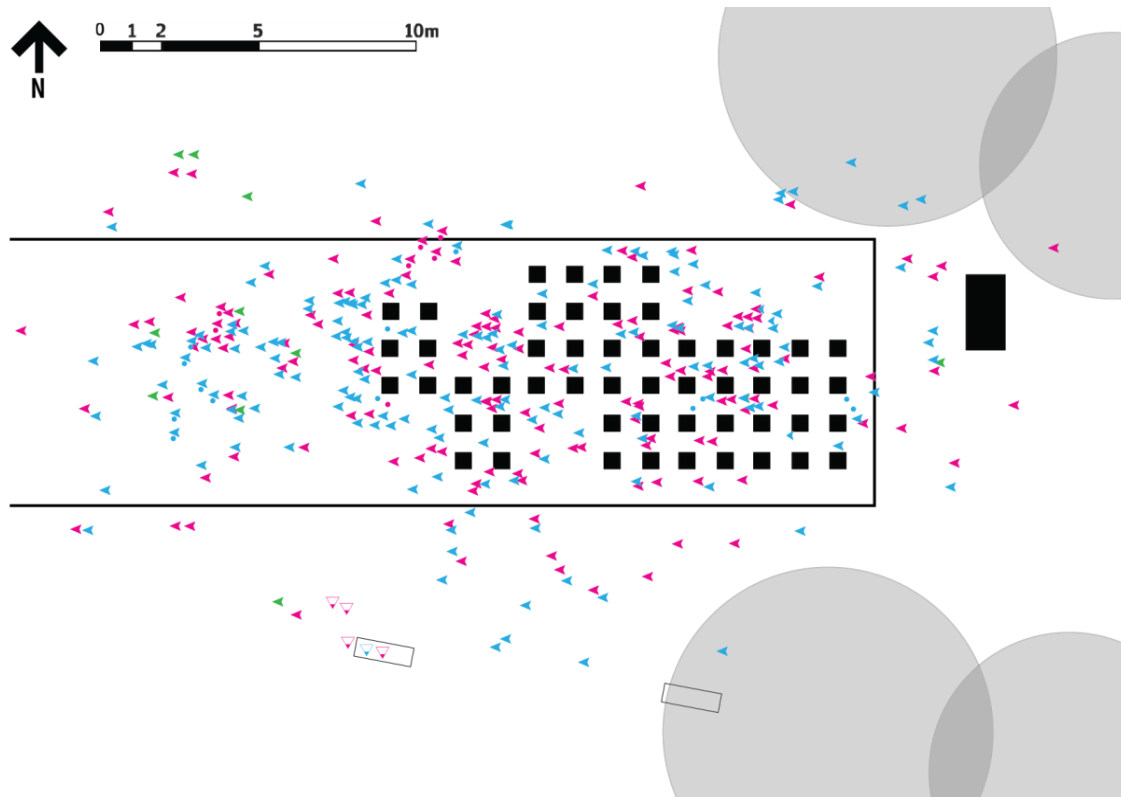


A digitalised episode of behavioural mapping at PDMF

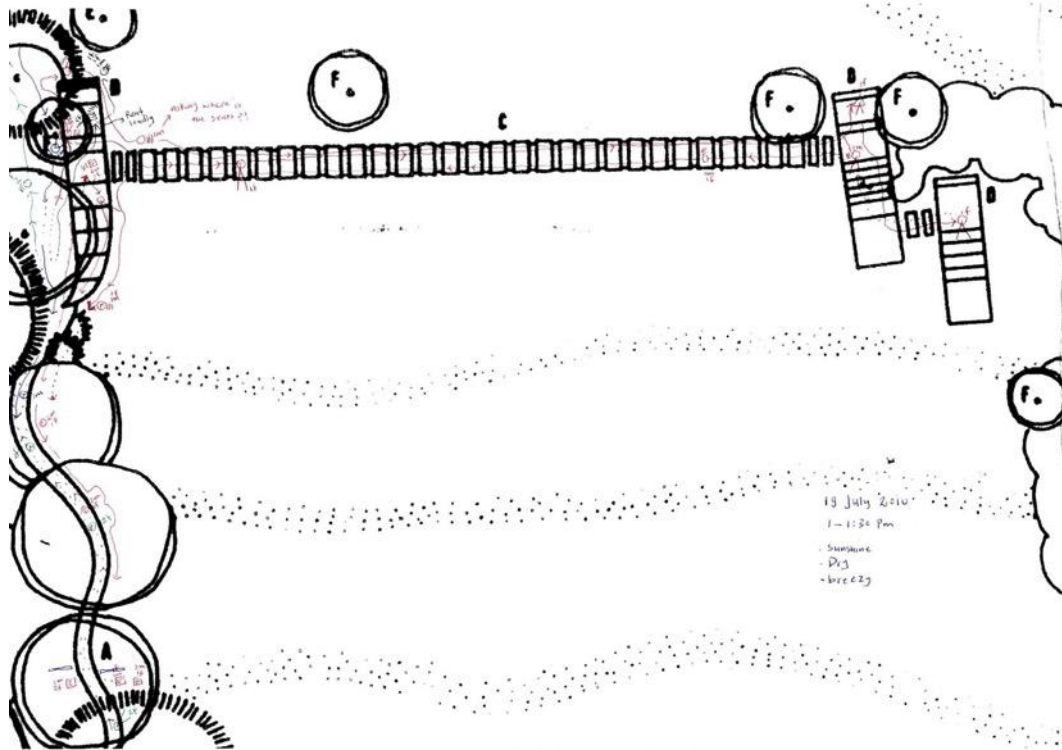




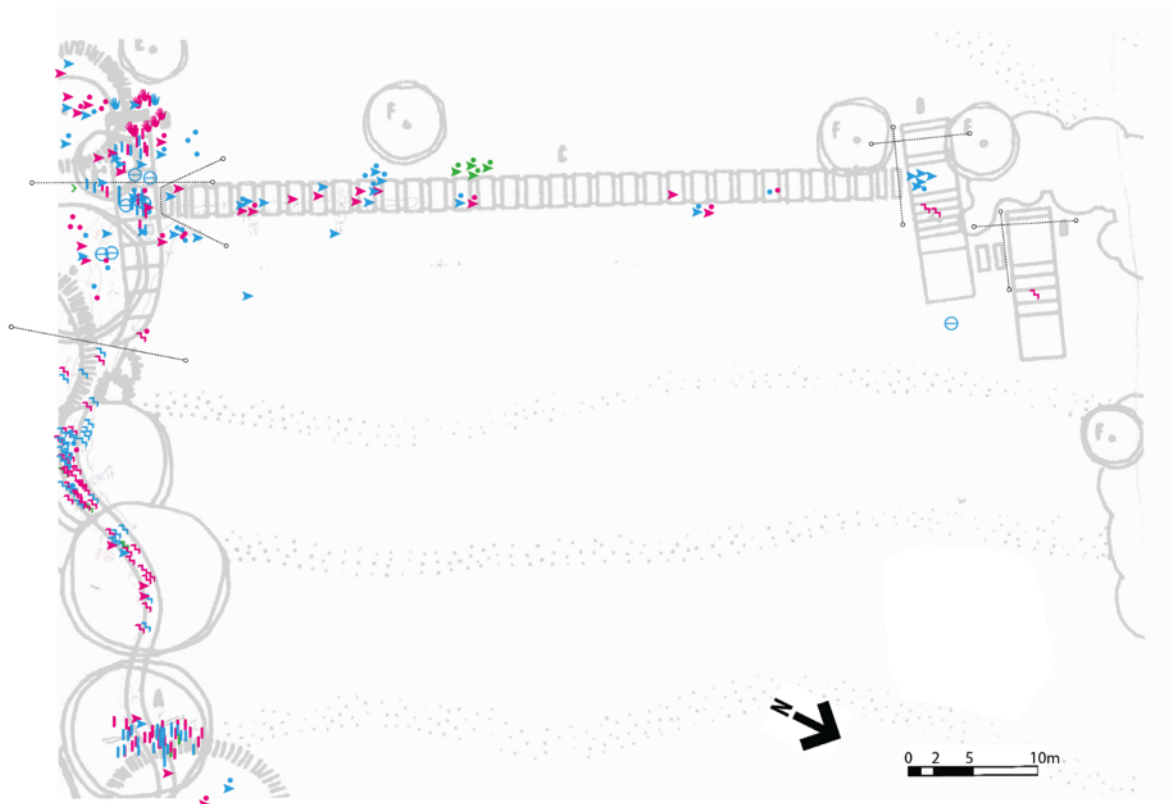
An episode of behavioural mapping at 7JM



A digitalised episode of behavioural mapping at 7JM
















An episode of behavioural mapping at JFKM



A digitalised episode of behavioural mapping at JFKM

D2. The activity symbols tables:

Appendices

Symbols	Environmental qualities	Written text	Open green space	Enclosed green space	Tarmac/flat surface	Calm water	Noisy/Swirling water	Sweeping water	Cascading water	Bubbling water	Bouncing water	Bubbling water	Cascading water	Carved stone		
	Activities	Description/Plaque	Central Grass areas	Peripheral grass area	Foots paths	Reflection pool	Swoosh	Rock and roll	Steps	Water source	Mountain stream	Bubbles	Cheddar	Fountain seating edges	Notes	
	Strolling and talking	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	
	Strolling and observing	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	
	Sitting and talking	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	
	Sitting and observing	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	
	Standing and talking	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	
	Standing and observing	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	
	Playing	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	
	Playing with water	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	
	Reading	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	
	Touching	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	
	Placing tributes	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	
	Lying down	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	
	Running around	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div><div>Cf</div></div> <div><div></div><div></div><div></div><div></div></div>	<div><div>M</div><div>F</div><div>Cm</div></div>							

Princess Diana Memorial Fountain

Date:

Time:

10:10:15

10:1510:30

10:3010:45

12:12:15

12:1512:30

12:3012:45

Weather conditions:

Windy/Breezy













Rainy

Damp/Dry

Cloudy/Sunshine

Appendices

3

Symbols	Environmental qualities	Wooden seats				Steal engraved columns				Steal engraved plaque				Turf elevated landform				Paved flat surface												Notes
	Activities	Afar viewing seats				Memorial 52 columns				Names plaque				Surrounding mound				Leading path												
	Strolling and talking	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									
	Strolling & observing	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									
	Sitting & talking	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									
	Sitting & observing/contemplating	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									
	Standing & talking	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									
	Standing & observing/contemplating	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									
	Playing	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									
	Getting up/down steps	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									
	Reading	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									
	Touching	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									
	Placing tributes	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									
	Lying down	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									
	Running around	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf	M	F	Cm	Cf									

7 July Memorial

Date:

Time:

11:30-12

12:15-12:45

13:30-14

14:15-14:45

Weather conditions:















Windy/Breezy

Rainy

Damp/Dry

Cloudy/Sunshine

Appendices

Symbols	Environmental qualities	Wooden gates	Stone tiles	Stone paved steps	Engraved Stone block	Stone pavement	Stone seat/open view	Stone seat/open view	Stone pavement/open view	Stone pavement/open view	Notes
	Activities	Memorial gates	Climbing steps	Stone platform	Memorial stone	Leading path	Viewing/contemplating bench (1)	Viewing/contemplating bench (2)	Viewing/contemplating platform (1)	Viewing/contemplating platform (2)	
	Strolling and talking	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Strolling and observing	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Sitting and talking	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Sitting and observing/contemplating	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Standing and talking	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Standing and observing/contemplating	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Playing	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Getting up steps	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Getting down steps	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Reading	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Touching	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Placing tributes	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Lying down	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	
	Running around	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	M( ) F( ) Cm( ) Cf( )	

J. (Kennedy) (Memoria

Date: (

Time: ((

☐!!!!11:1-11:30!

!!!!!!11:45-12:15!

☐!!!12:30-1!

!!!!!!12:45-13:15!

!!!!!!13:30-14!

!!!!!!14:15-15:45!

!!!!!!16:00-17:30!

Weather (conditions: (

Windy/Breezy!

Rainy!

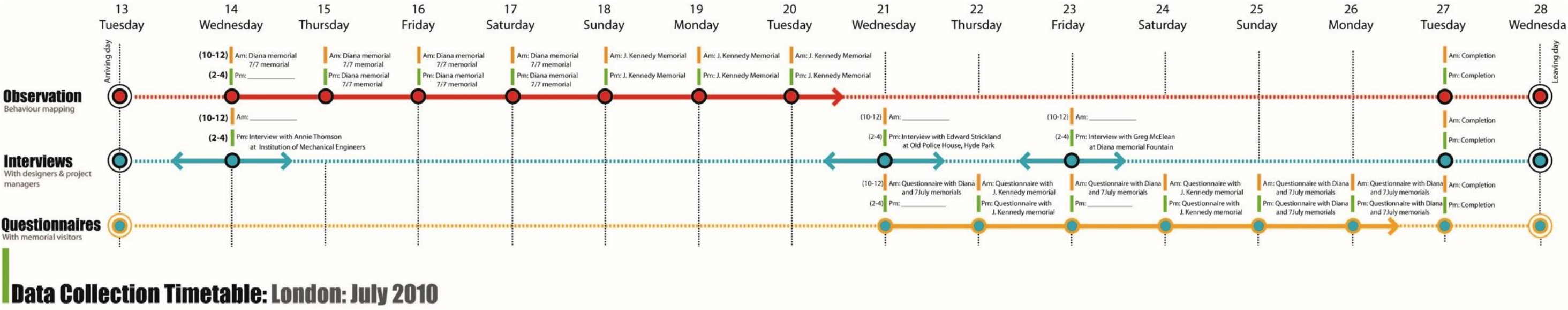
Damp/Dry!

Cloudy/Sunshine!

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D3. Time schedule of site study, London 2010:



Appendix E: Palestinian Nakba archival materials

E1. Al-Nakba oral history:  
See Al-Nakba oral history interviews folder in the CD.



## Appendices

E2. Al-Nakba photography archive:

See Al-Nakba archival photos folder in the CD.

